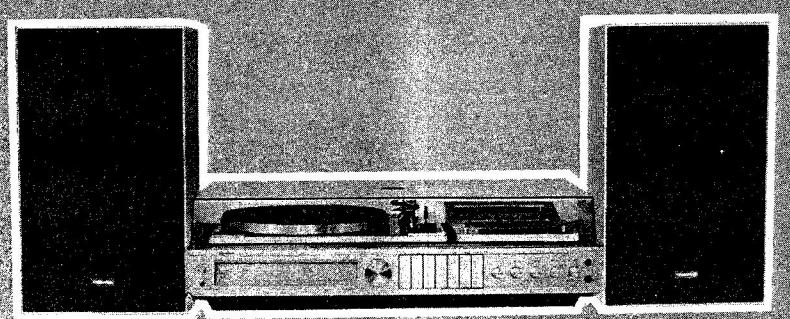
SERVICE DATA
FILE NO. 130-093

TOSHIBA

STEREO MUSIC CENTRE

SM-3150



SPECIFICATIONS

AF UNIT	
Music power:	2 × 15 W, 1% THD of 8 Ohm (2 × 18W, 1% THD of 4 Ohm)
Continuous power:	2 × 12W, 1% THD of 8 Ohm (both driven) (2 × 13W, 1% THD of 4 Ohm) (both driven)
Frequency response (— 3dB):	20 Hz — 40 kHz
Difference output:	2 dB
Crosstalk attenuation between channels:	55 dB at 1 kHz
Signal to noise ratio:	60 dB
Sensivity at rated power output:	Moving magnet cartridge: 3.5 mV (Maximum Capability 5.2 mV) at 1 kHz Tape in: 0.3 Volt
Input impedance:	Tape in: 100k Ohm at 1 kHz
Recording output:	0.3V — 10k Ohm
Control range:	Bass: ±10dB at 100 Hz Treble: ±10dB at 10 kHz
Loudness:	5 dB at 100 Hz
Headphones:	Recommended impedance of headphones more than 8 Ohm
RF UNIT	
A) FM Band	
Aerial:	External aerial (balanced 300 Ohm and 75 Ohm)
Usable sensitivity:	Mono: 4 μV Stereo: 10 μV
Signal to noise ratio 40 kHz, DEV at 1 kHz:	Mono 56dB
Distortion at 1 kHz:	0.3%
AM suppression:	40 dB
Separation at 1 kHz:	35 dB
B) AM Band	
Aerial:	Ferrite core aerial
Usable sensitivity:	
LW:	100 μV/m
MW:	100 μV/m

STEREO RECORD PLAYER	
Drive system:	Belt drive
Motor:	4 pole induction motor
Turntable:	30cm
Speed:	Two speed, 33-1/3 & 45 r.p.m.
Wow & flutter:	Less than 0.1% (w.r.m.s.)
Signal to noise ratio:	More than 45dB
Cartridge:	C-52M
Stylus:	N-52D
Stylus pressure:	2.5 ± 0.5g
CASSETTE RECORDER	
Usable tape:	Compact cassette
Tape speed:	4.75 cm/s
Recording system:	AC Bias
Erasing system:	AC Erase
Track system:	4 Track/2 Channel stereophonic
Heads:	Record/Playback head, Erase head
Frequency response (— 3dB):	40Hz — 10 kHz
Signal to noise ratio:	55 dB
SPEAKER	
Speakers:	16 cm, 5 cm (2 ways system) × 2
Impedance:	8 Ohm
Dimensions:	W 275 × H 470 × D 203 (mm)
Weight: (2 pcs)	7 kg
GENERAL	
Power source:	240 Volt 50Hz for England and Australia 220 Volt 50Hz for Europe Power consumption: 95 Watt
Frequency range:	LW 150 — 330 kHz MW 525 — 1605 kHz FM 88 — 108 MHz
Dimensions:	W 690 × H 190 × D 420 (mm)
Weight:	15 kg

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1. OPERATING INSTRUCTIONS

1-1 FRONT VIEW

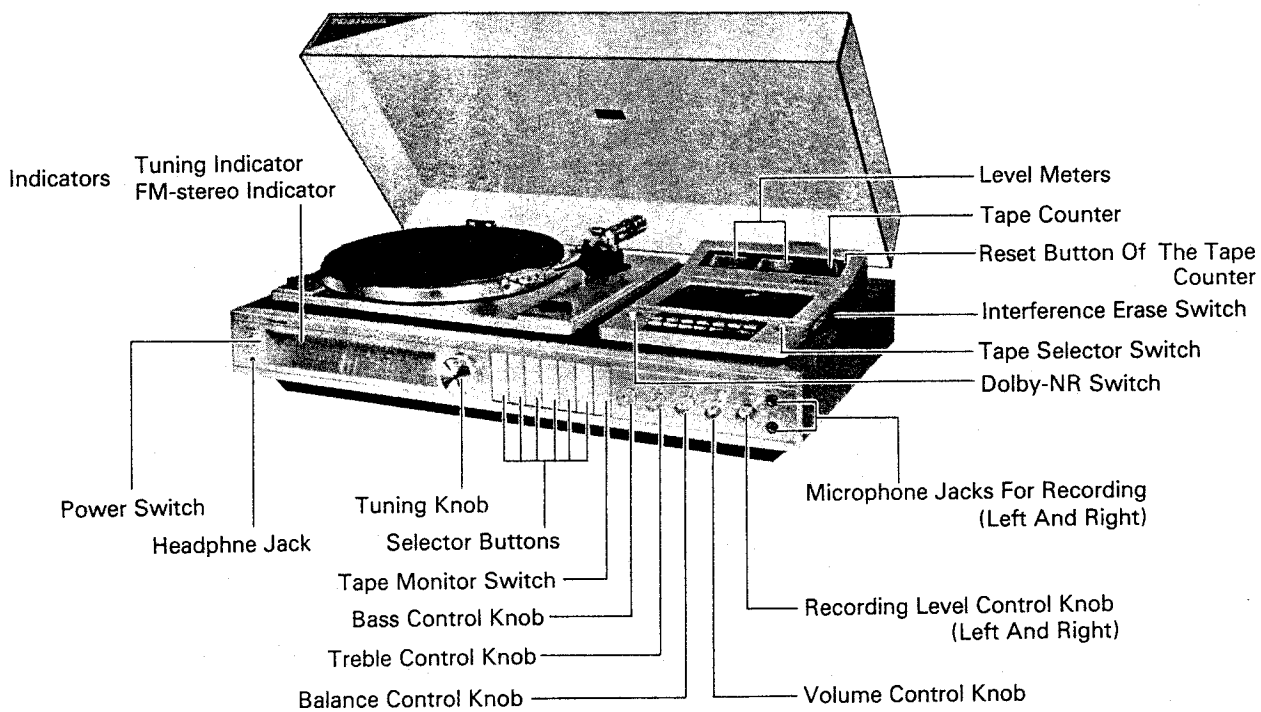


Figure 1

1-2 REAR VIEW

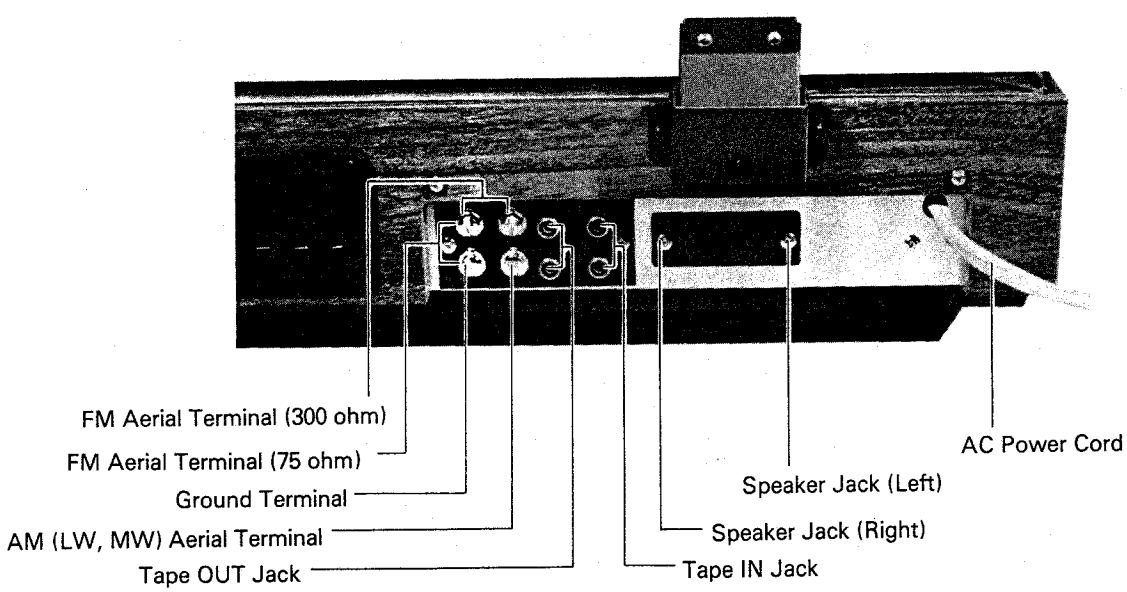


Figure 2

1-3 CASSETTE VIEW

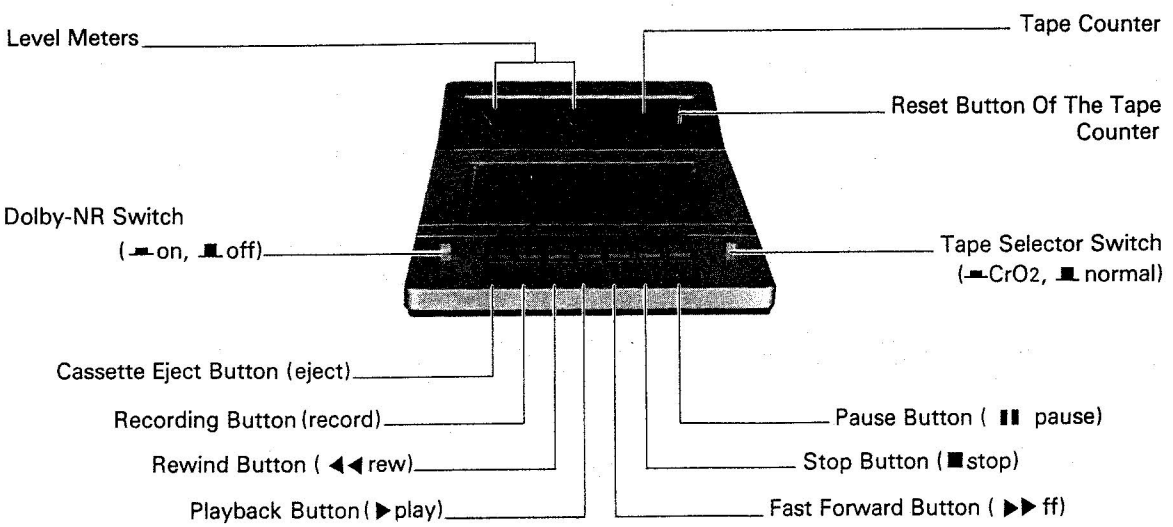


Figure 3

For Service Manuals Contact

2. DISASSEMBLY INSTRUCTIONS

2-1 PLAYER REMOVAL

a) Lift up the turntable sheet and turntable.
b) Remove the three transit screws marked (※) from the player panel.
c) Loosen the two mounting screws marked (★) and slide them to the direction of arrow as shown on player.
d) Lift up the player panel and disconnect the power line cord connector (4P) and 3P socket connector.

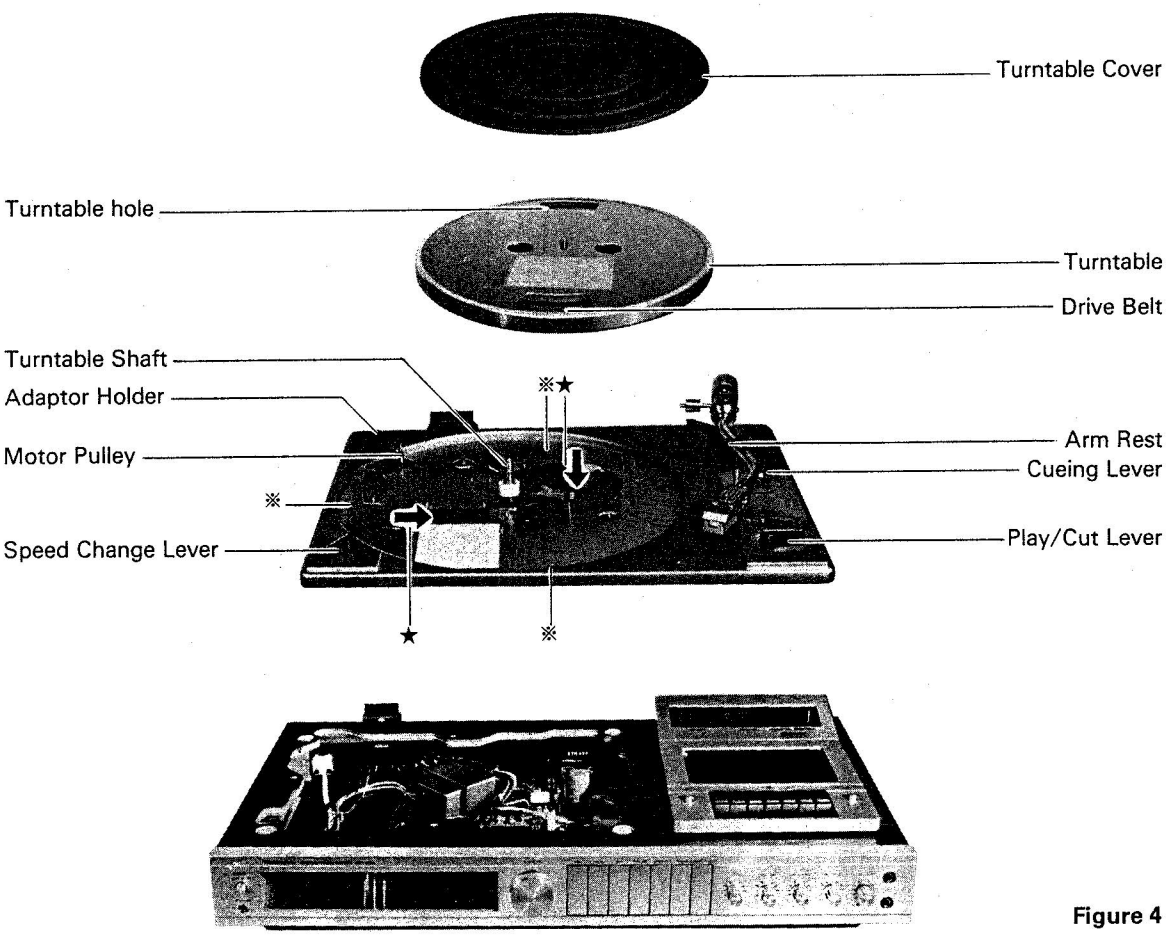


Figure 4

2-2 CASSETTE REMOVAL

a. Remove the two screws marked (*) as shown in figure 5.
b. Slide and lift up the cassette body to the direction of arrow indicating in figure 5.
c. Remove the eleven screws marked (★) as shown in figure 6, and remove the chassis.

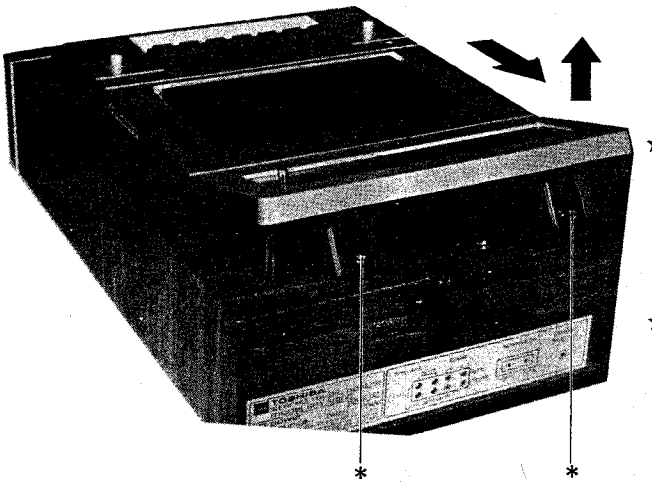


Figure 5

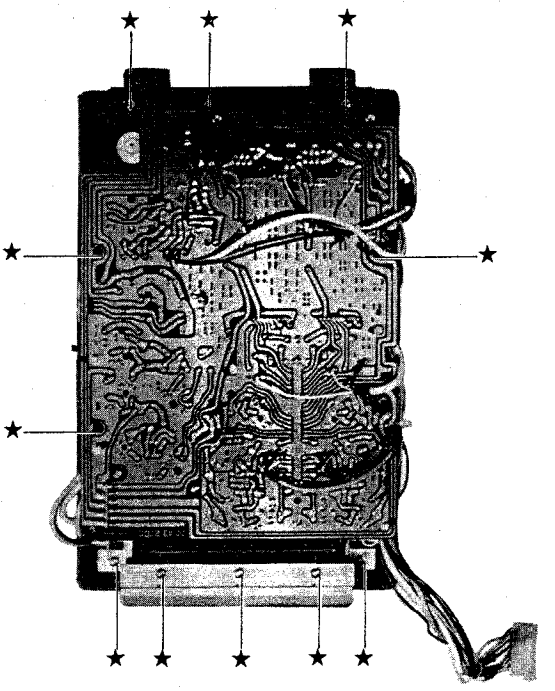


Figure 6

2-3 CABINET REMOVAL

a. Remove the eleven screws marked (※) as shown in figure 7 and figure 8.
b. The cabinet can now be removed as shown in figure 8.

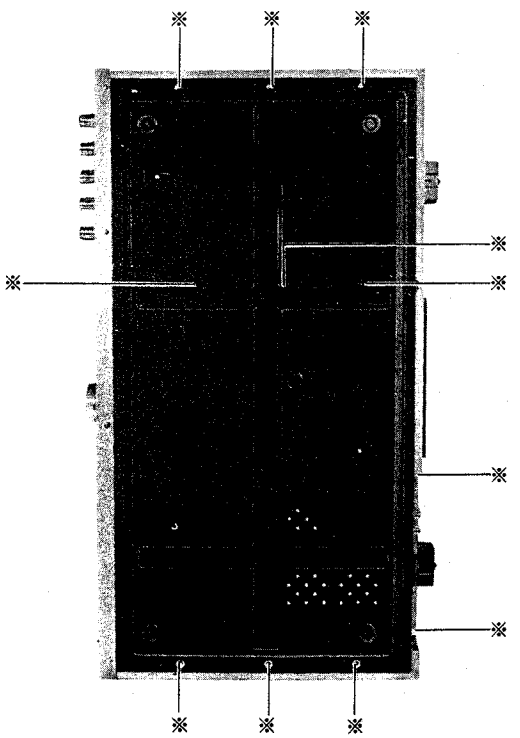


Figure 7

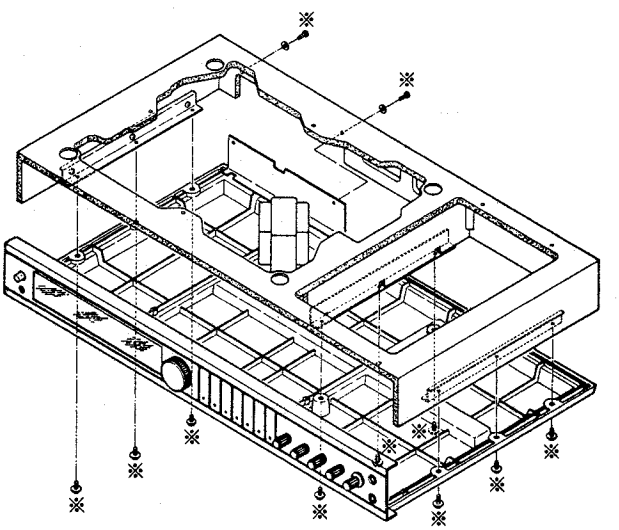
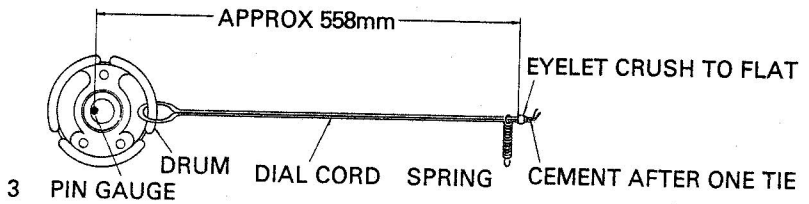


Figure 8

2-4 DIAL CORD STRINGING

a. Set the tuning capacitor to the maximum capacitance (fully counterclockwise position).
b. Wind the dial cord in the numerical sequence as shown in figure 9.



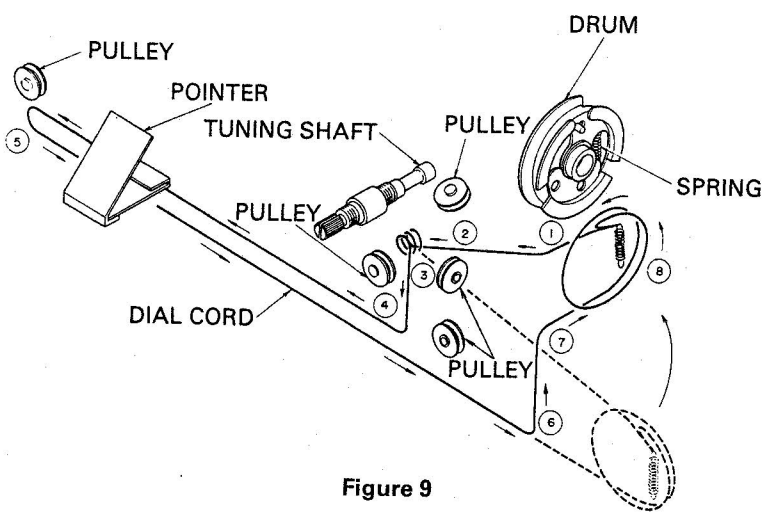


Figure 9

2-5 STYLUS CARTRIDGE REPLACEMENT

a. Exchange of the stylus can be done as shown in figure 10.
b. Remove the cartridge from headshell. (See figure 11)
c. Remove the four clips from cartridge. (Figure 12 is wiring.)

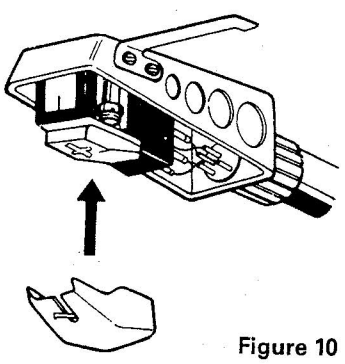


Figure 10

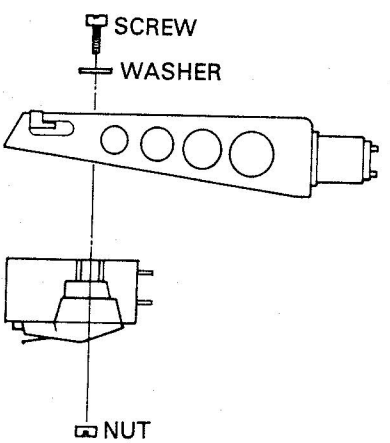
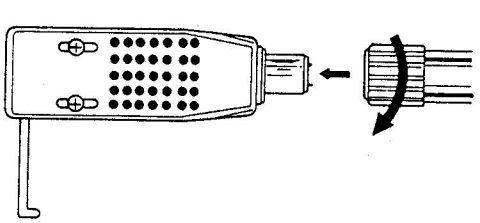


Figure 11



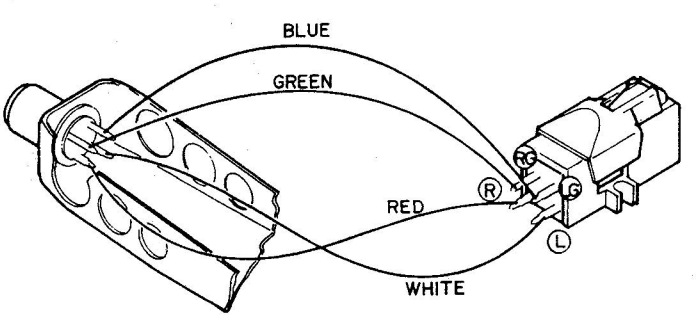


Figure 12

3. ALIGNMENT POINT

3-1 RADIO UNIT

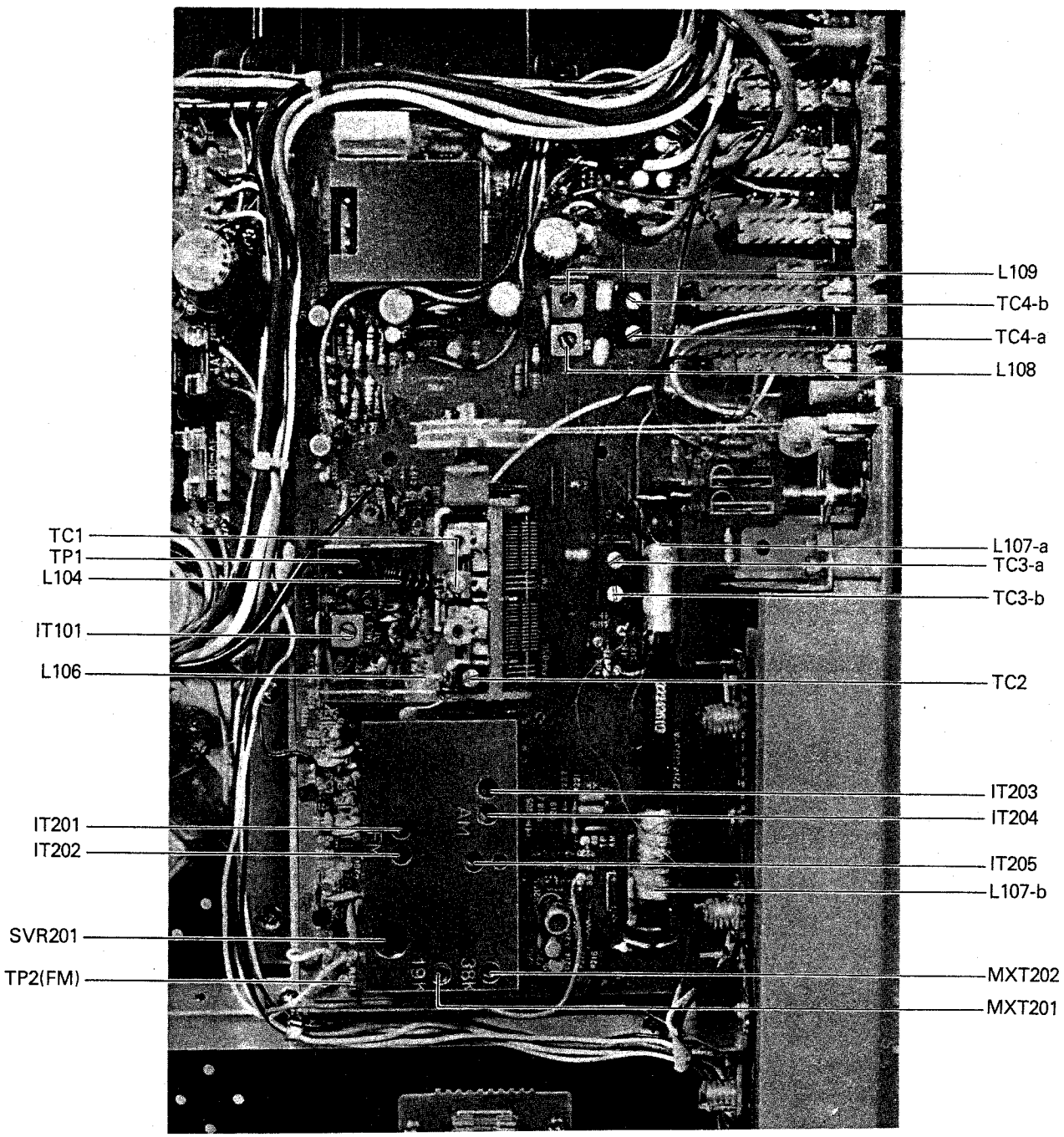


Figure 13

4. ALIGNMENT INSTRUCTIONS

1. Sweep signal generator (Sweep range of at least 300 kHz, center frequency of 10.7 MHz.)
2. Signal generator with a frequency range of at least from 140 kHz to 1.7 MHz for AM, from 87 MHz to 110 MHz and 10.7 MHz for FM.
3. Oscilloscope with a wide range amplifier of approximately 100 kHz.
4. Test loop — a coil of any size wire one turn or more.
5. VTVM (Vacuum tube voltmeter)

NOTES:

1. During alignment keep the signal generator output at the lowest level where useable from the set can be maintained.
2. Ground connection of signal generator .... To Chassis ground.
3. Generator modulation .... 400 Hz, 30%
4. For alignment points, see schematic diagram.

4-1 MW ALIGNMENT

1. Set SELECTOR switch to MW.
2. Set signal generator frequency as listed in TABLE 1 MW ALIGNMENT CHART.
3. Proceed as outlined in the TABLE 1 MW ALIGNMENT CHART.

TABLE 1 MW ALIGNMENT CHART (See Figure 13, 14)

Step	Signal Generator	Signal Generator	Radio Dial Setting	Meter or Oscilloscope Connection	Adjustment	Remarks
1	Test loop	455 kHz	Tuning gang fully counter-clockwise	VTVM across voice coil	IT203 IT204 IT205	Adjust for Maximum
2	Test loop	510 kHz	Same as step 1	Same as step 1	L108	Same as step 1
3	Test loop	1650 kHz	Tuning gang fully clockwise	Same as step 1	TC4-a	Same as step 1
4	Repeat steps 2 and 3 until no further improvement is noticed.					
5	Test loop	600 kHz	Tune to signal	Same as step 1	L107-a	Same as step 1
6	Test loop	1400 kHz	Tune to signal	Same as step 1	TC3-a	Same as step 1
7	Repeat steps 5 and 6 until no further improvement is noticed.					

4-2 LW ALIGNMENT

1. Set SELECTOR switch to LW.
2. Set signal gnerator frequency as listed in TABLE 2 LW ALIGNMENT CHART.
3. Proceed as outlined in the TABLE 2 LW ALIGNMENT CHART.

TABLE 2 LW ALIGNMENT CHART (See Figure 13, 14)

Step	Signal Generator Connection	Signal Generator Frequency	Radio Dial Setting	Meter or Oscilloscope Connection	Adjustment	Remarks
1	Test loop	145 kHz	Tuning gang fully counter-clockwise	VTVM across voice coil	L109	Adjust for maximum
2	Test loop	385 kHz	Tuning gang fully clockwise	Same as step 1	TC4-b	Same as step 1
3	Repeat steps 1 and 2 until no further improvement is noticed.					
4	Test loop	170 kHz	Tune to signal	Same as step 1	L107-b	Same as step 1
5	Test loop	340 kHz	Tune to signal	Same as step 1	TC3-b	Same as step 1
6	Repeat steps 4 and 5 until no further improvement is noticed.					

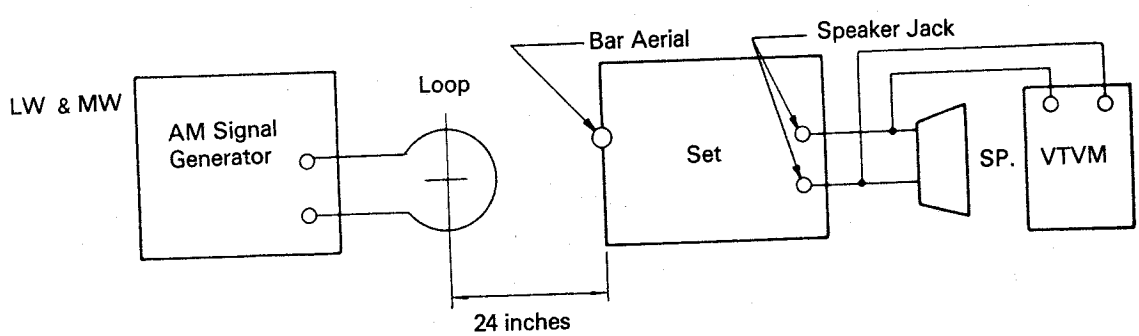


Figure 14

4-3 FM ALIGNMENT

1. Set SELECTOR switch to FM-st.
2. Set signal generator frequency as listed in TABLE 3 FM ALIGNMENT CHART.
3. Proceed as outlined in the TABLE 3 FM ALIGNMENT CHART.

TABLE 3 FM ALIGNMENT CHART (See Figure 13, 15)

Step	Signal Generator Connection	Signal Generator Frequency	Radio Dial Setting	Meter or Oscilloscope Connection	Adjustment	Remarks
1	Sweep Generator through buffer to TP1	10.7 MHz	Tuning gang fully counter-clockwise	Scope to TP2 as shown in Figure 13.	IT101 IT201 IT202	See "S curve" in Figure 13.
2	300 ohms matching pad	87.7 MHz	Same as step 1	VTVM across voice coil	L106	Adjust for maximum
3	Same as step 2	109 MHz	Tuning gang fully clockwise	Same as step 2	TC2	Same as step 2
4	Repeat steps 5 and 6 until no further improvement is noticed.					
5	Same as step 2	90 MHz	Tune to signal	Same as step 2	L104	Same as step 2
6	Same as step 2	106 MHz	Tune to signal	Same as step 2	TC1	Same as step 2
7	Repeat steps 2 and 3 until no further improvement is noticed.					

CAUTION:

When realigning the FM Receiving Frequency, the lower side of the frequency range must not be below 87.5 MHz in order to comply with FTZ regulations in West Germany.

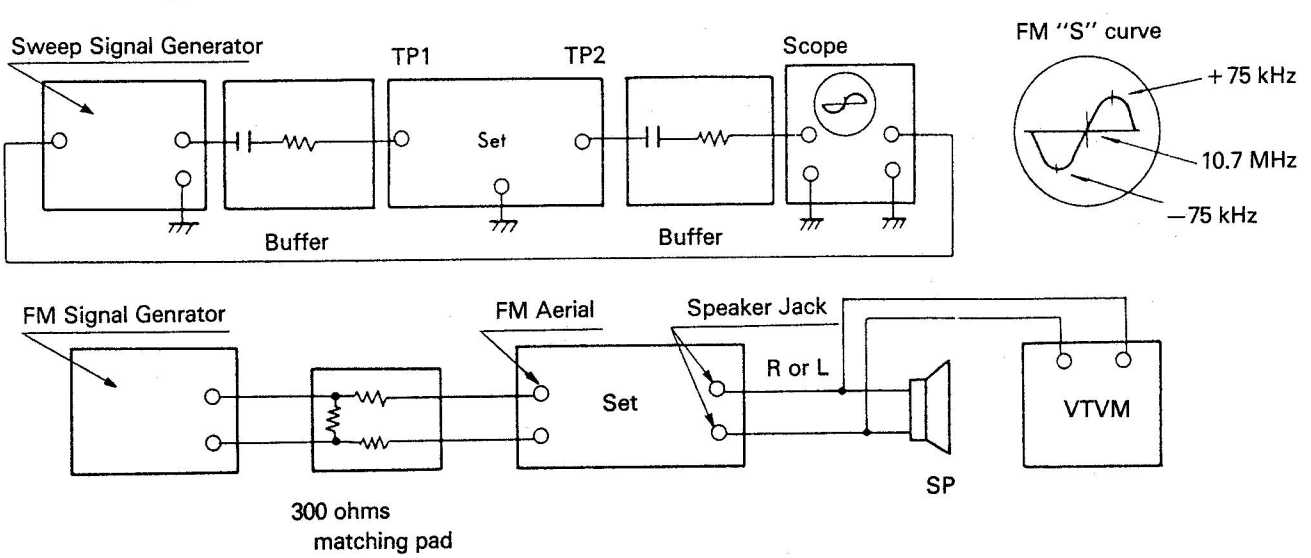


Figure 15

4-4 FM STEREO ALIGNMENT

General Alignment conditions
1. RF signal input should be about 60 dB (1 mV).
2. Set tuning gang to quiet point on dial.

NOTE:
Set the deviation meter by the signal of L = R and switch mode desired.

TABLE 4 FM STEREO ALIGNMENT CHART (See Figure 13, 16)

Step	Modulation Frequency	Modulation mode setting	Modulation level setting	Output indicator connection	Adjustment	Remarks
1	1000 Hz	Stereo L with pilot	90% (67.5 kHz) 10% (pilot) (7.5 kHz)	Oscilloscope or VTVM across voice coil of L ch.	MXT201 MXT202 slightly	Adjust for maximum
2	1000 Hz	Stereo R with pilot	Same as step 1	Same as step 1	SVR201 5k ohm Semi-fixed resistor slightly (separation)	Adjust for minimum

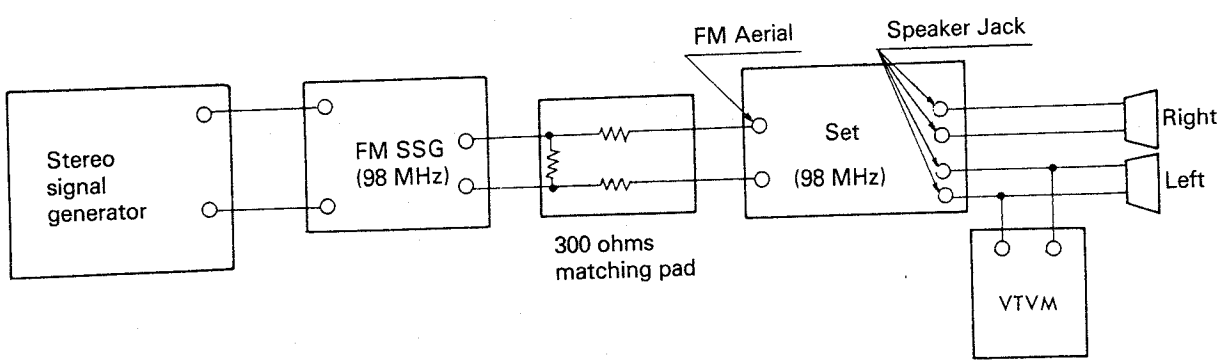
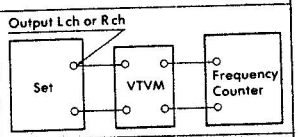
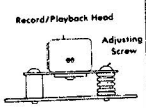
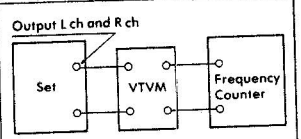
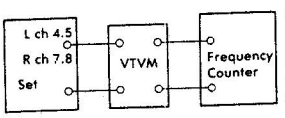
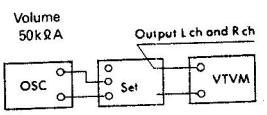
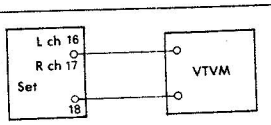
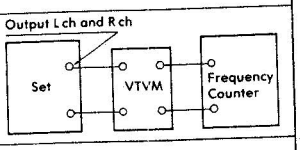


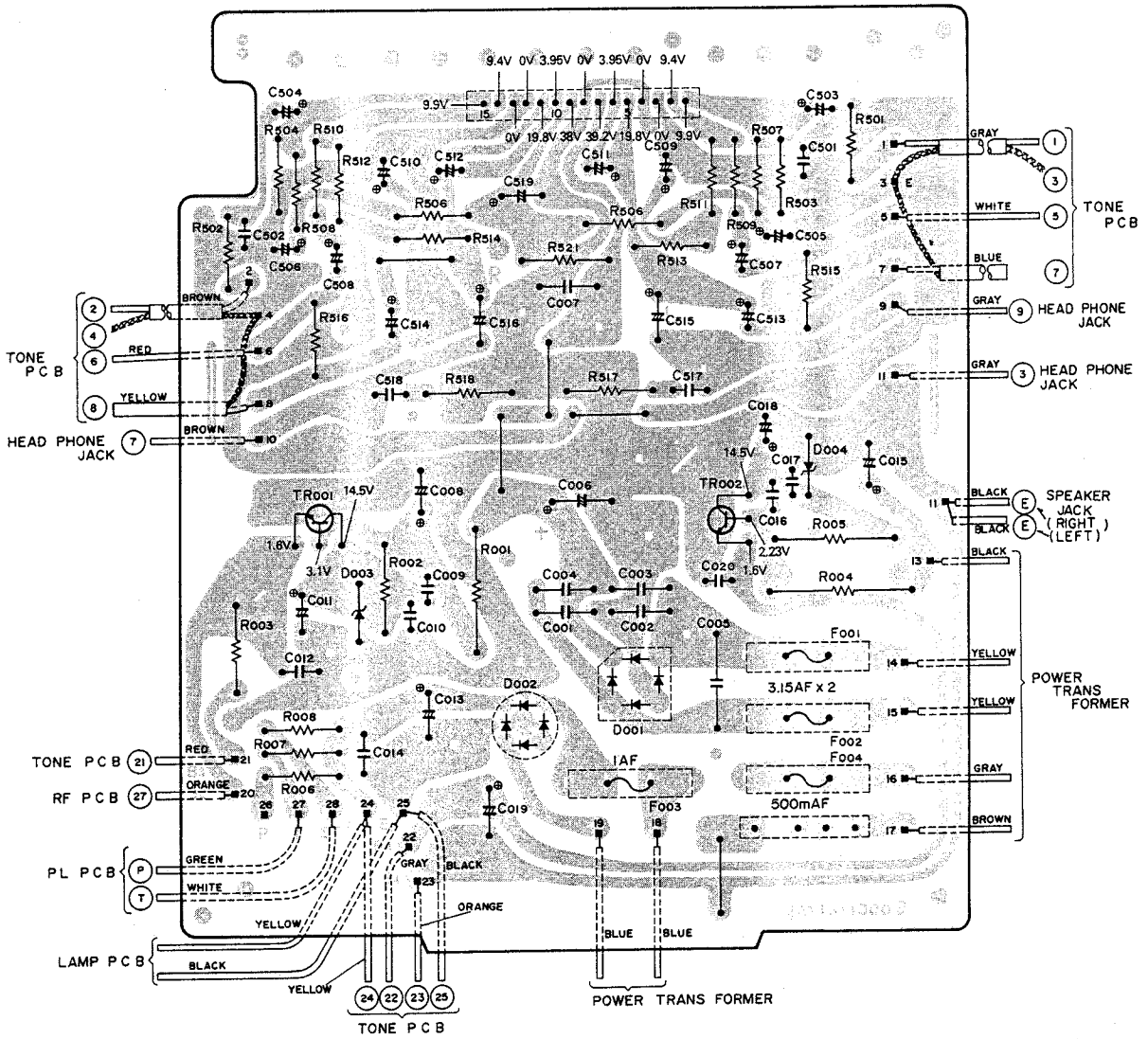
Figure 16

TABLE 5 ALIGNMENT CHART (See Figure 17, 5-9)

Step	Item	Adjustment	Performance	Test Point	Output Indicator Connected	Remarks	Connection
1	TAPE Speed	VR902 (Main) VR901 (Sub)	TEST TAPE MTT-111 (3000 Hz) Tape play Back	Right or Left Output	VTVM Frequency Counter	Frequency 3000 Hz	
2	Record and Playback head azimuth adjustment		TEST TAPE MTT-114 (10 kHz) Tape Play Back	Right and Left Output	VTVM Frequency Counter	To maximum reading of VTVM against lower output channel of L ch or R ch	
3	TAPE bias Frequency	L701	BLANK TAPE Recording and Pause	Tape Deck P.C.B. Point 4 and 5 (L ch) Point 7 and 8 (R ch)	VTVM Frequency Counter	Interference eraser switch ● position 66.5 kHz Interference switch eraser o position 63.8 kHz	
4	TAPE bias Current	NORMAL SVR703, 704 CrO2 SVR701, 702 L603 L604	Same as Step 3	Same as Step 3	VTVM	NORMAL position 2.9mV CrO2 position 4.8 mV No difference on current in interference eraser switchshifting	Same as step 3
5	Meter reading	SVR607 (L ch) SVR608 (R ch)	Same as Step 3	Tape Deck P.C.B. Point 18 and 16 (L ch) Point 18 and 17 (R ch)	OSC VTVM Frequency Counter	Input signal 1kHz 270mV Output level 410 mV Level meter 0 reading	
6	TAPE bias leak	TRAP adjusting L601 (L ch) L602 (R ch)	BLANK TAPE Recording and pause	Tape Deck P.C.B. Point 18 and 16 (L ch) Point 18 and 17 (R ch)	VTVM	Input short circuit Minimum output on test point	
7	Recording Current Adjustment	SVR605 (L ch) SVR606 (R ch)	BLANK TAPE Recording and pause	Tape Deck P.C.B. across point 4 and 5 (L ch) across point 7 and 8 (R ch)	OSC VTVM Frequency Counter	Input signal 1 kHz 270 mV 0.4 mV output on test point	Same as step 3
8	Peaking Adjustment NORMAL position)	L607 (L ch) L608 (R ch)	Same as step 7	Same as step 7	Same as step 7	Input signal 10kHz 90.5mV 0.4mV output on test point	Same as step 3
9	PLAYBACK Gain Adjustment	SVR603 (L ch) SVR604 (R ch)	TEST TAPE MTT-112 (333Hz 0dB) PLAY BACK position	Tape Deck output	VTVM Oscilloscope Frequency Counter	Output Level 650mV	
10	Play Back HEAD Level Adjustment (NORMAL)	SVR601 (L ch) SVR602 (R ch)	TEST TAPE MITT-117L (frequency response) PLAY BACK position	Tape Deck output	VTVM OSC Counter	Output Setting Level 333Hz 205.5mV 10kHz 205.5mV	Same as step 9

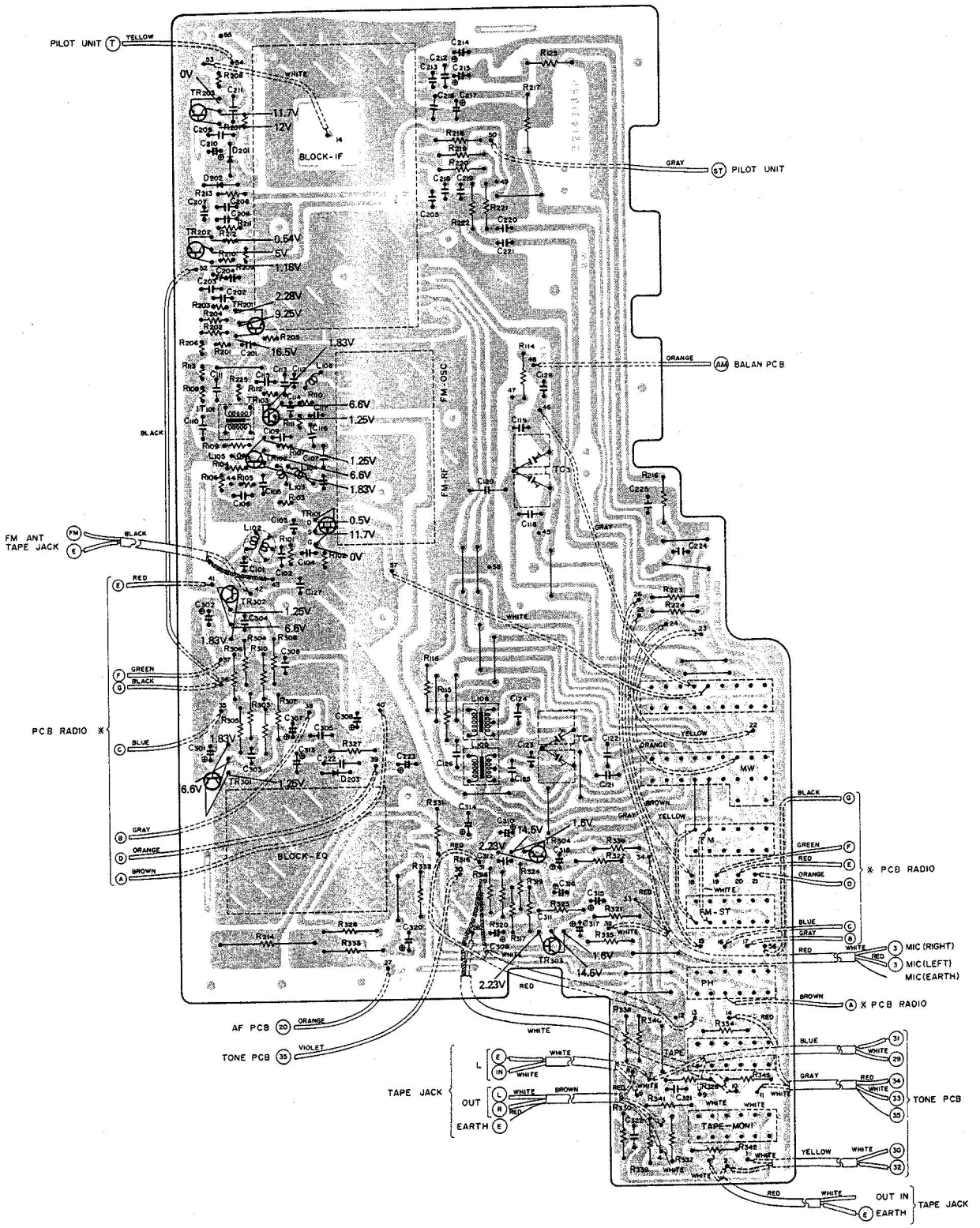
5. PRINTED CIRCUIT BOARDS

5-1 AF BLOCK



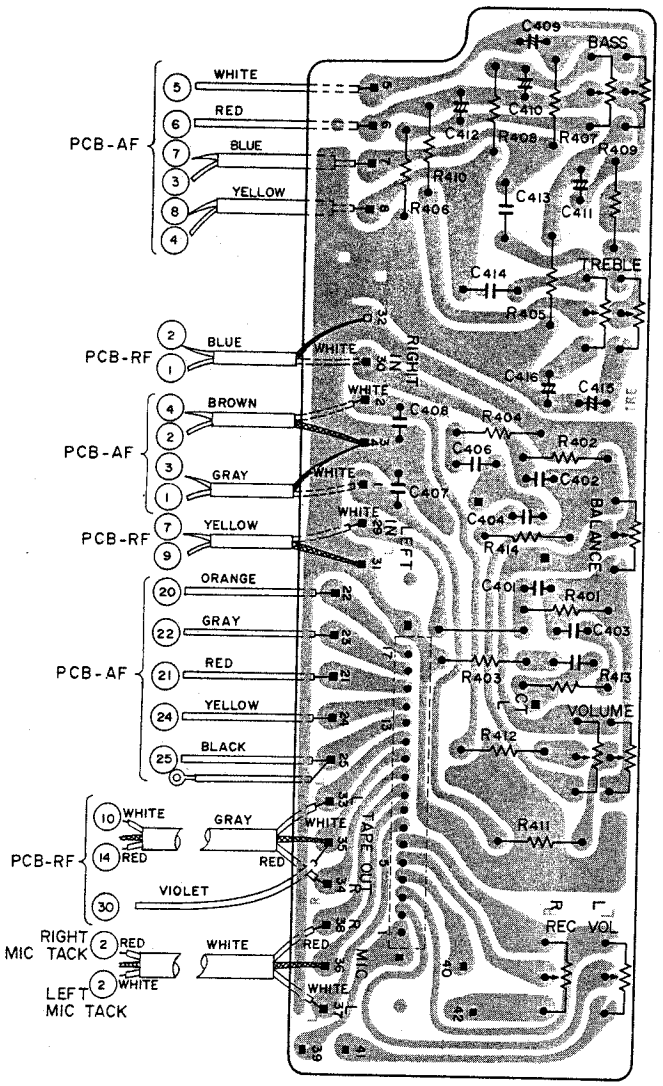
BOTTOM VIEW

5-2 RF BLOCK



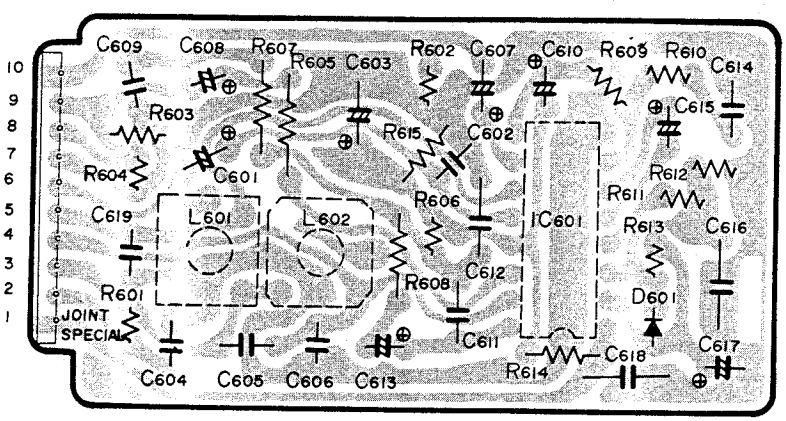
BOTTOM VIEW

5-3 TONE BLOCK

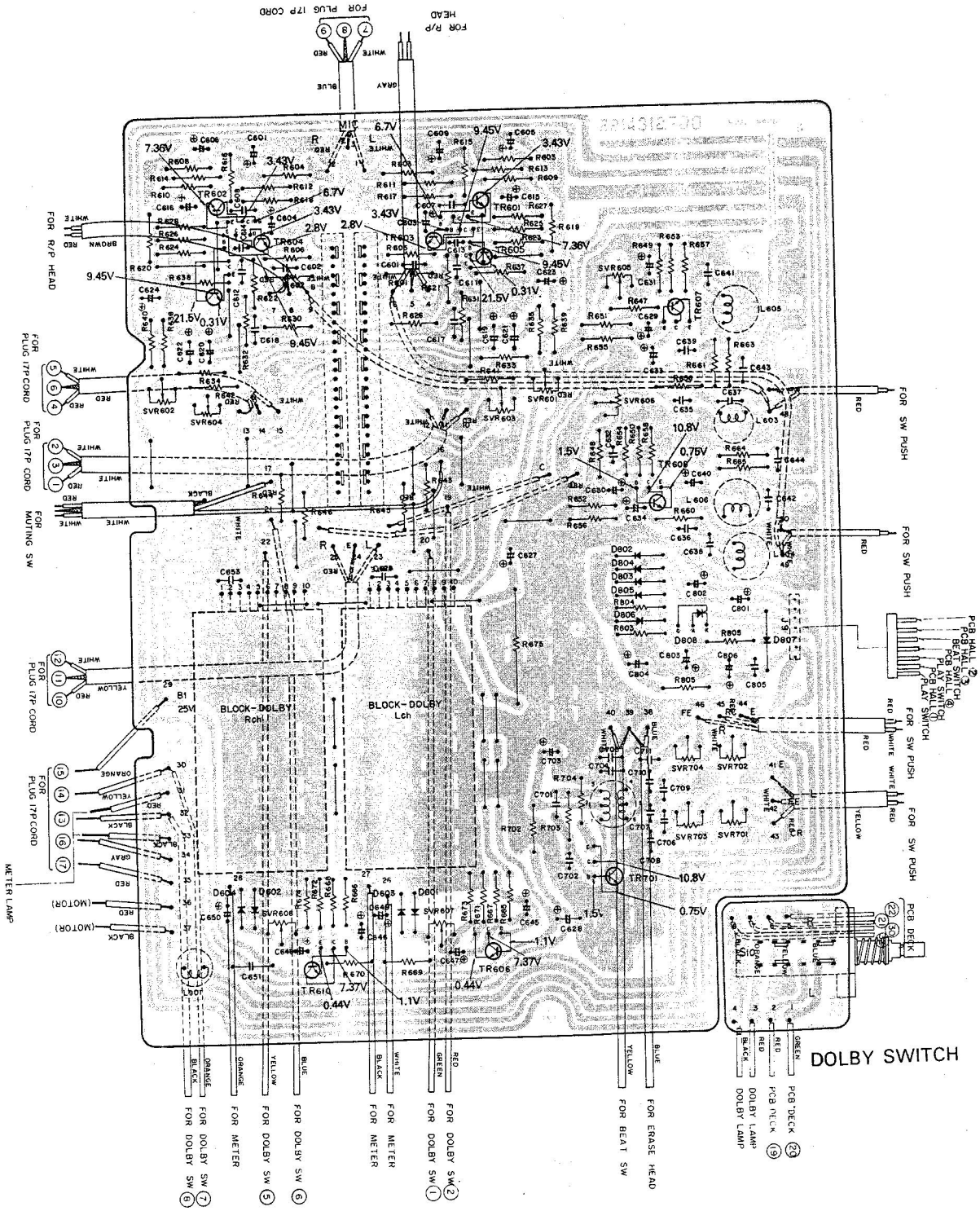


BOTTOM VIEW

5-4 DOLBY BLOCK

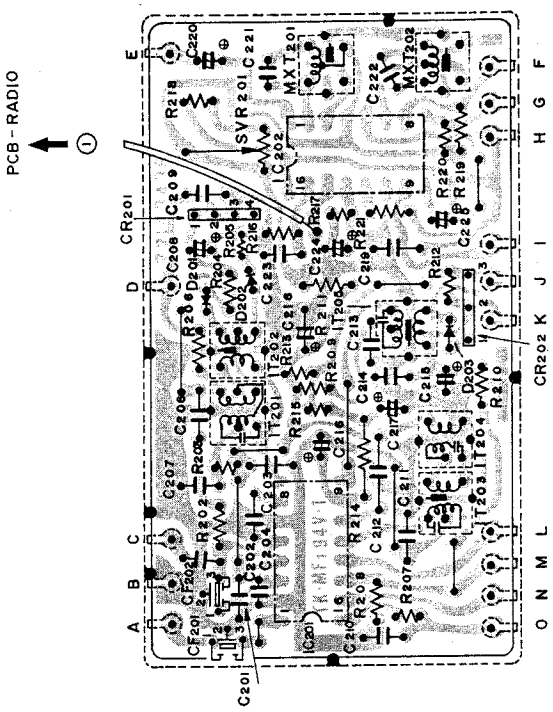


5-5 CASSETTE DECK BLOCK



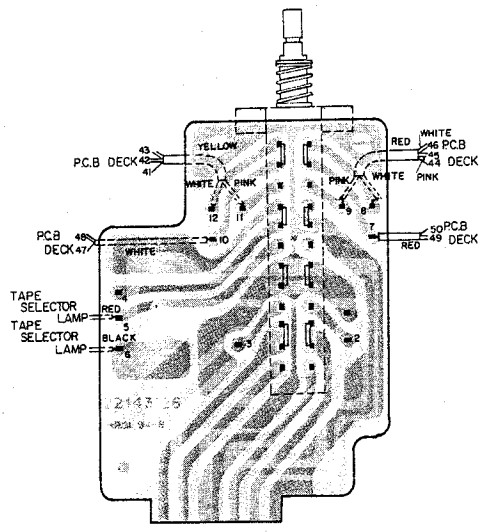
BOTTOM VIEW

5-6 IF BLOCK



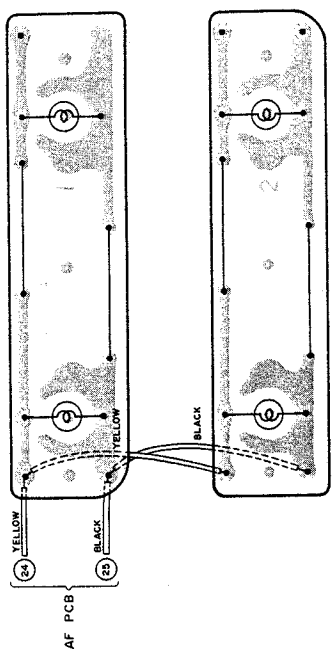
BOTTOM VIEW

5-7 TAPE SELECTOR SWITCH BLOCK



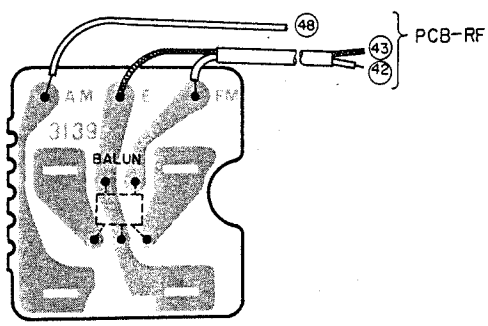
BOTTOM VIEW

5-8 DIAL LAMP BLOCK



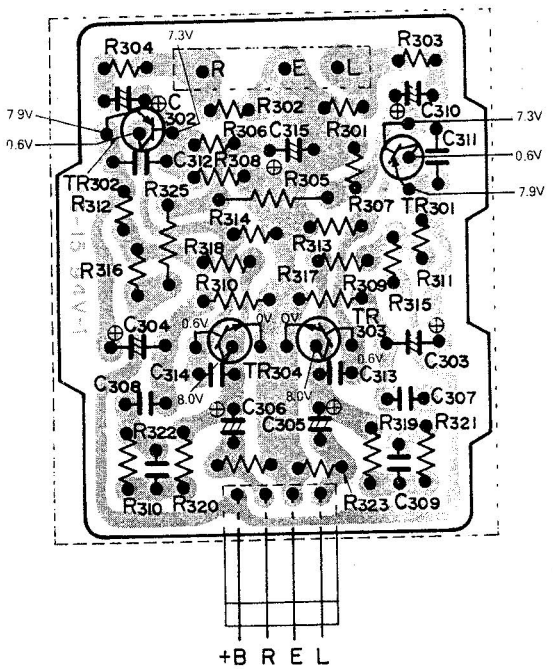
BOTTOM VIEW

5-9 BALUN BLOCK



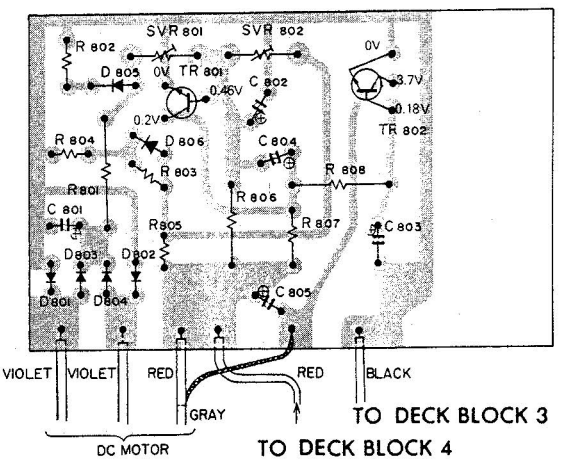
BOTTOM VIEW

5-10 AF EQUALIZER BLOCK



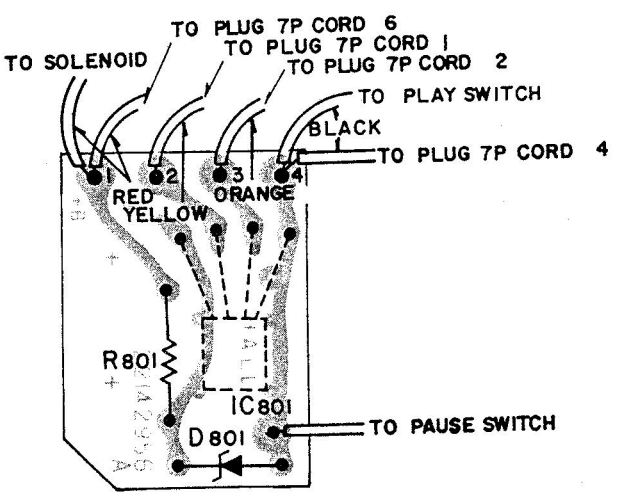
BOTTOM VIEW

5-11 MOTOR GOVERNOR BLOCK



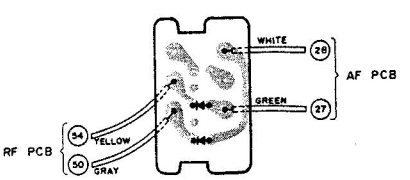
BOTTOM VIEW

5-12 HALL BLOCK



BOTTOM VIEW

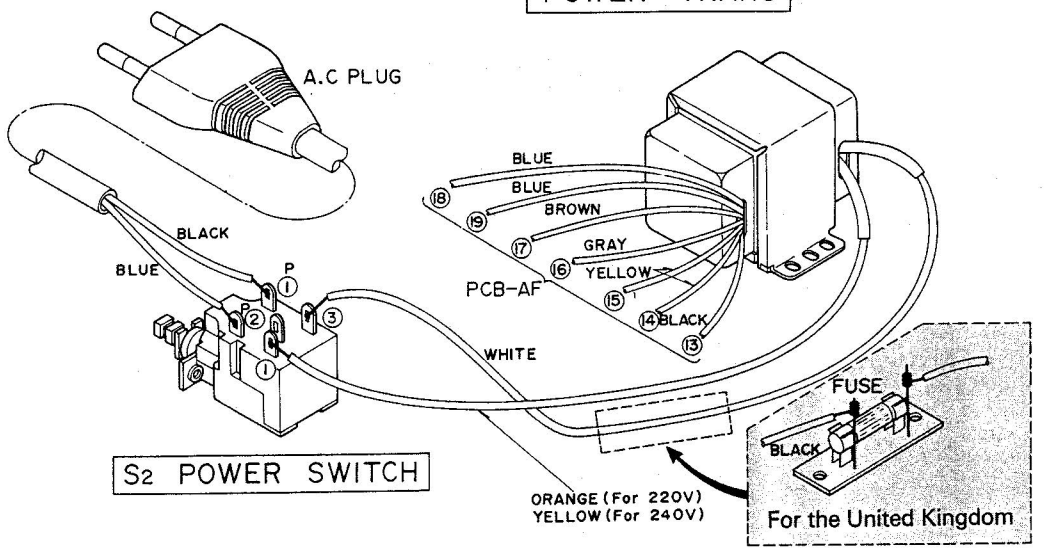
5-13 PILOT LAMP BLOCK



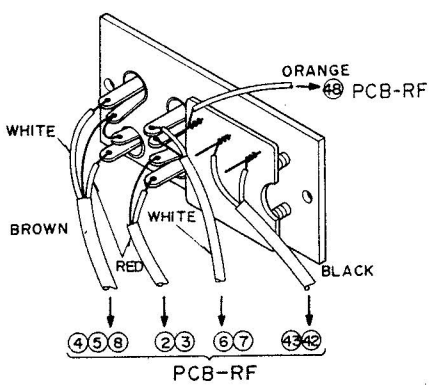
BOTTOM VIEW

6. SEVERAL PARTS CONNECTIONS

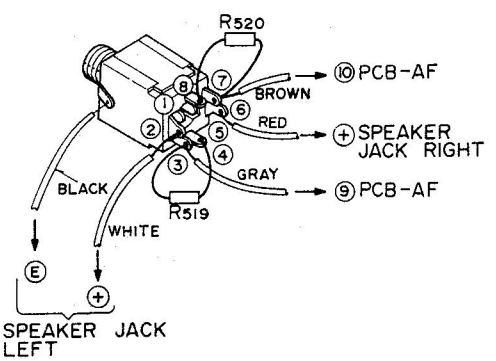
POWER TRANS



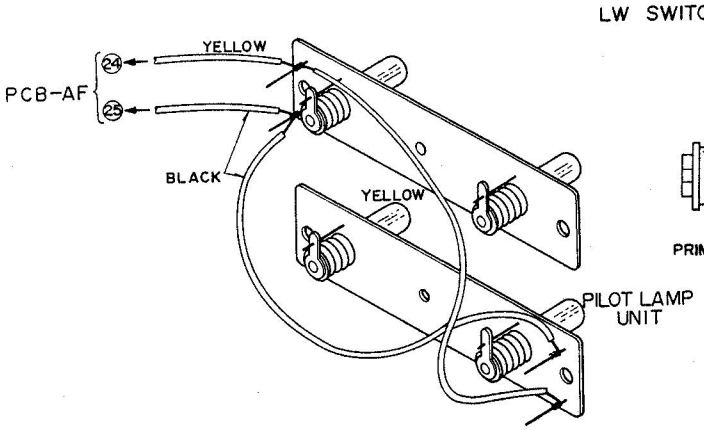
FM, ANT, TAPE JACK



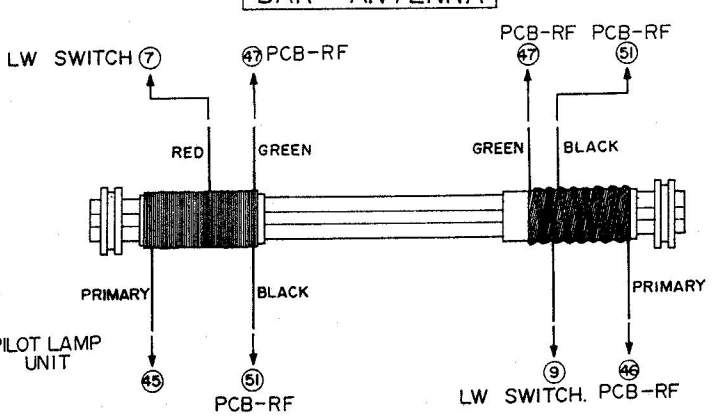
J4 HEADPHONE JACK

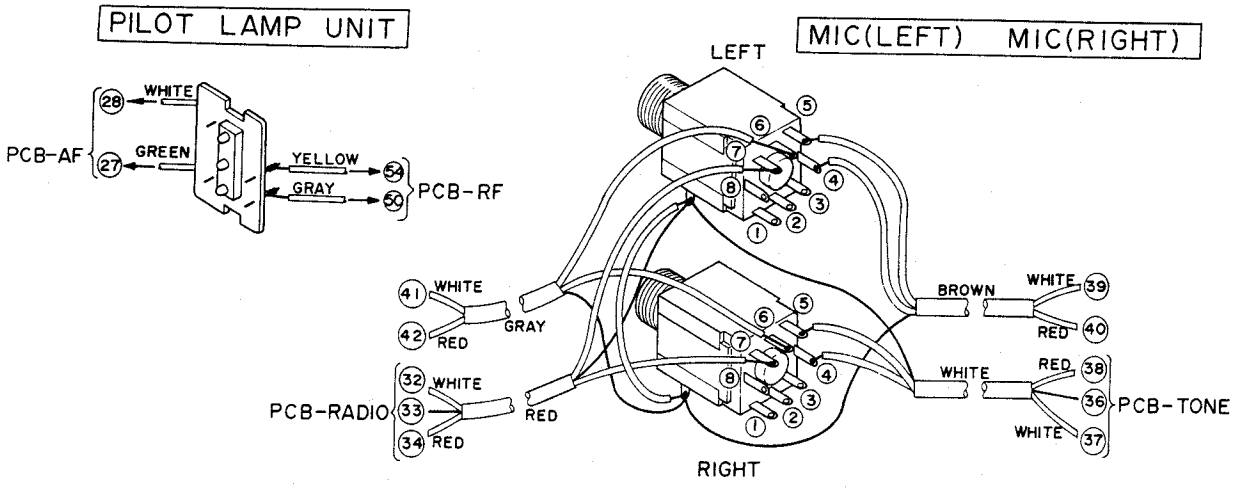


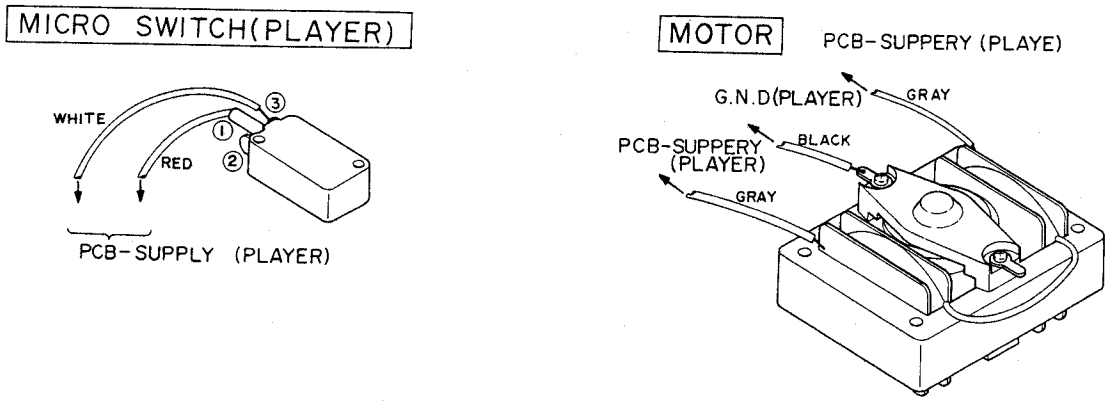
TUNING DIAL LAMP



BAR ANTENNA

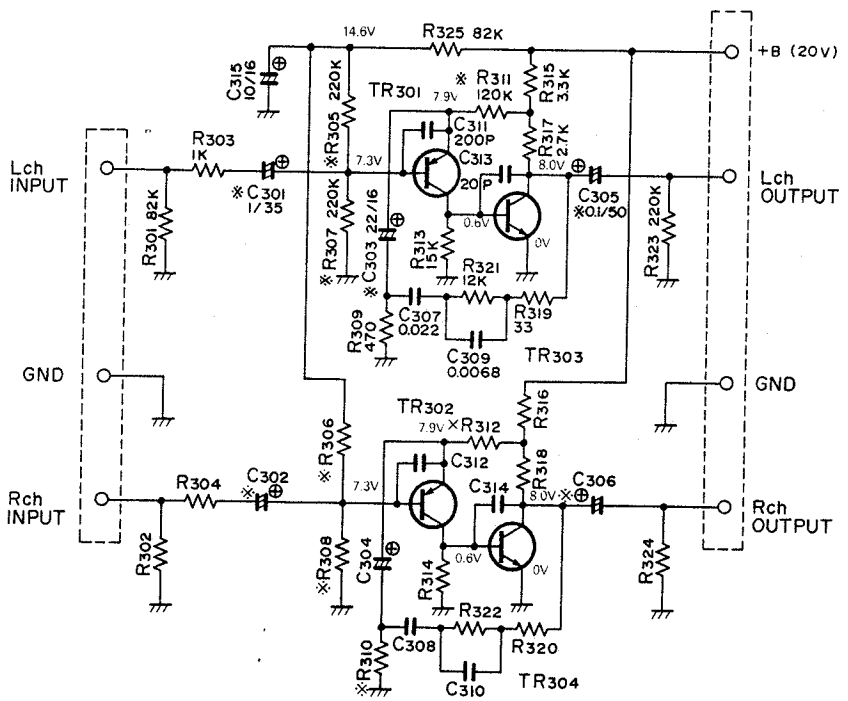




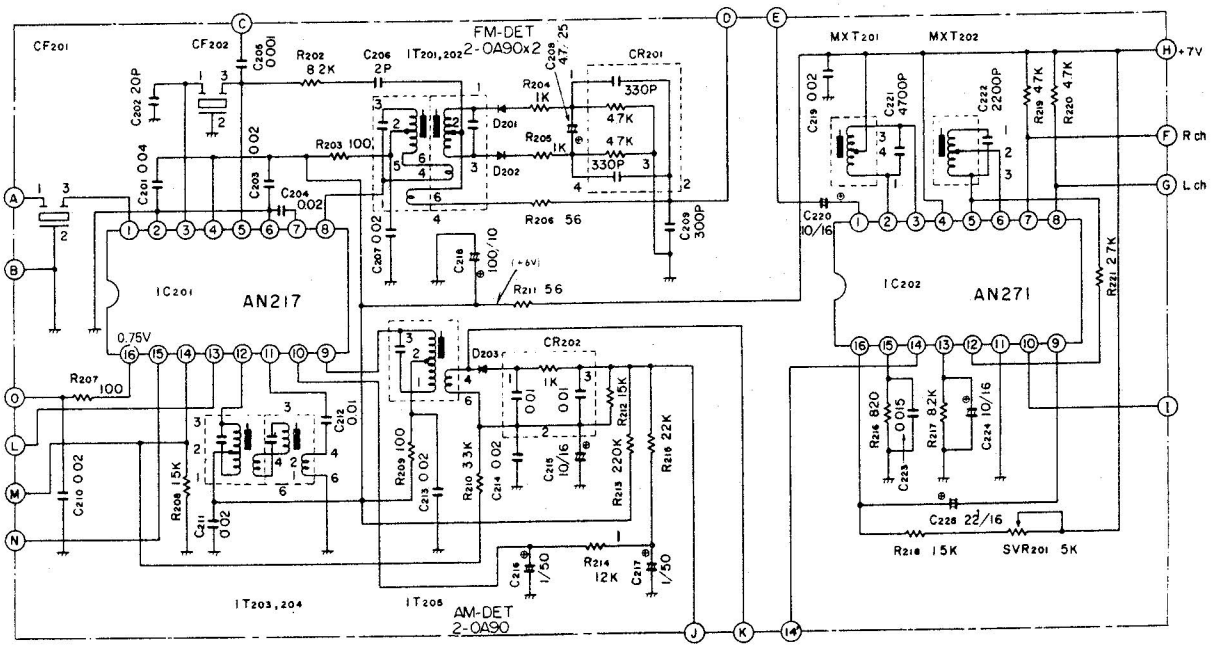


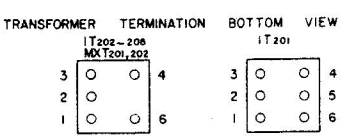
7. SCHEMATIC DIAGRAM

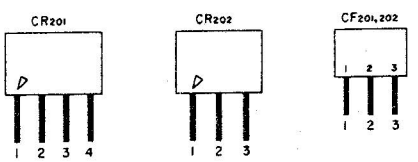
7-1 EQUALIZER BLOCK



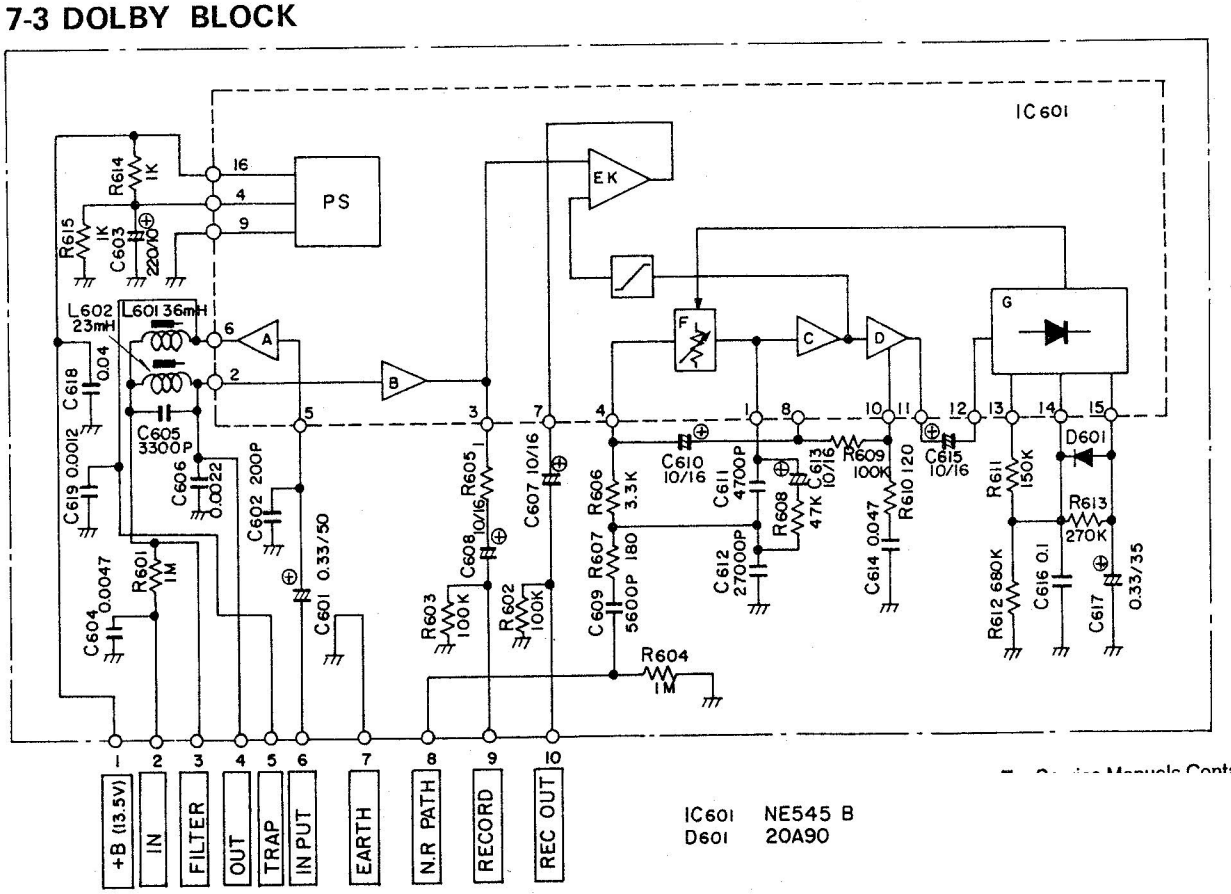
7-2 IF BLOCK





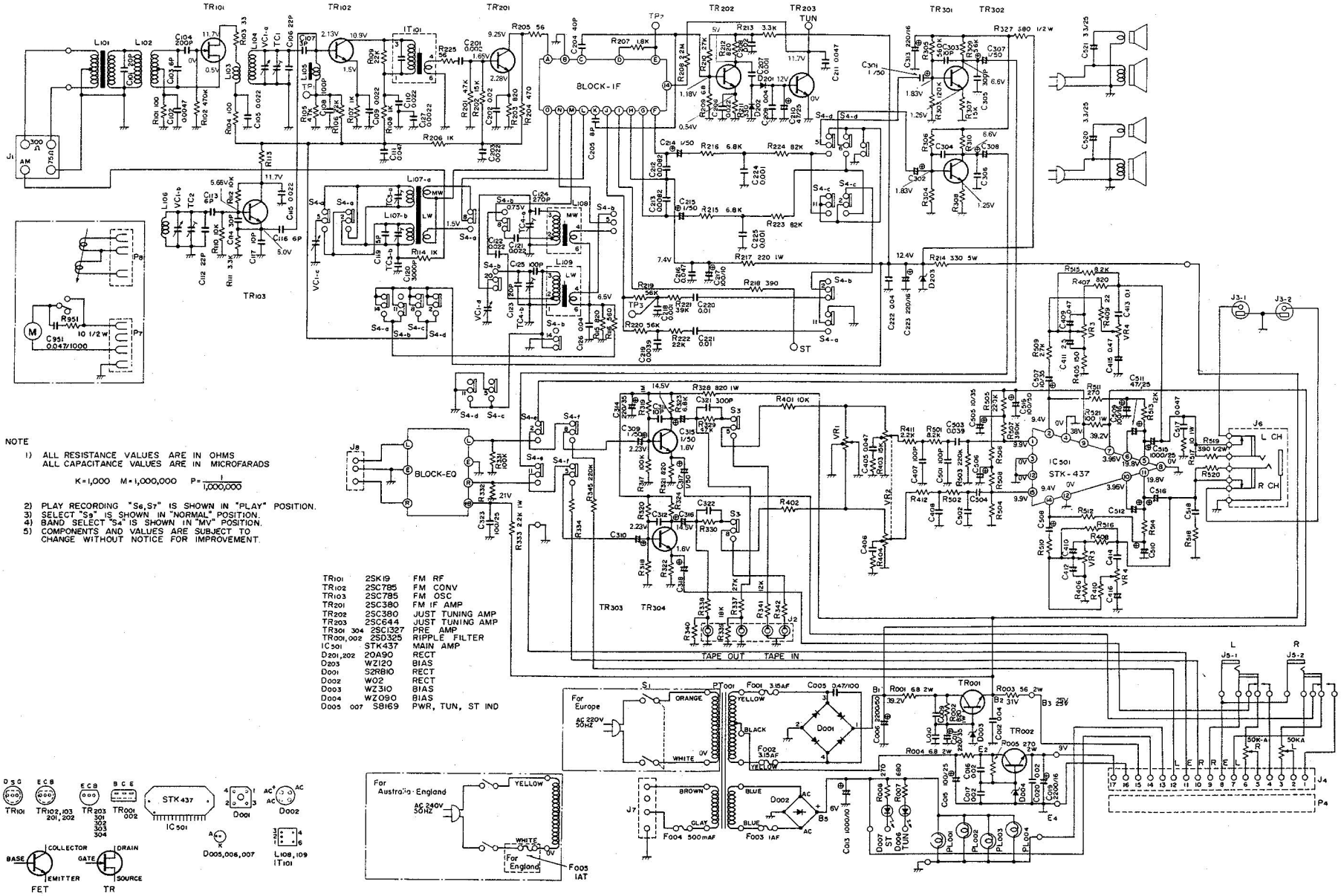


7-3 DOLBY BLOCK



IC601 NE545 B
D601 20A90

7-4 GENERAL



NOTE

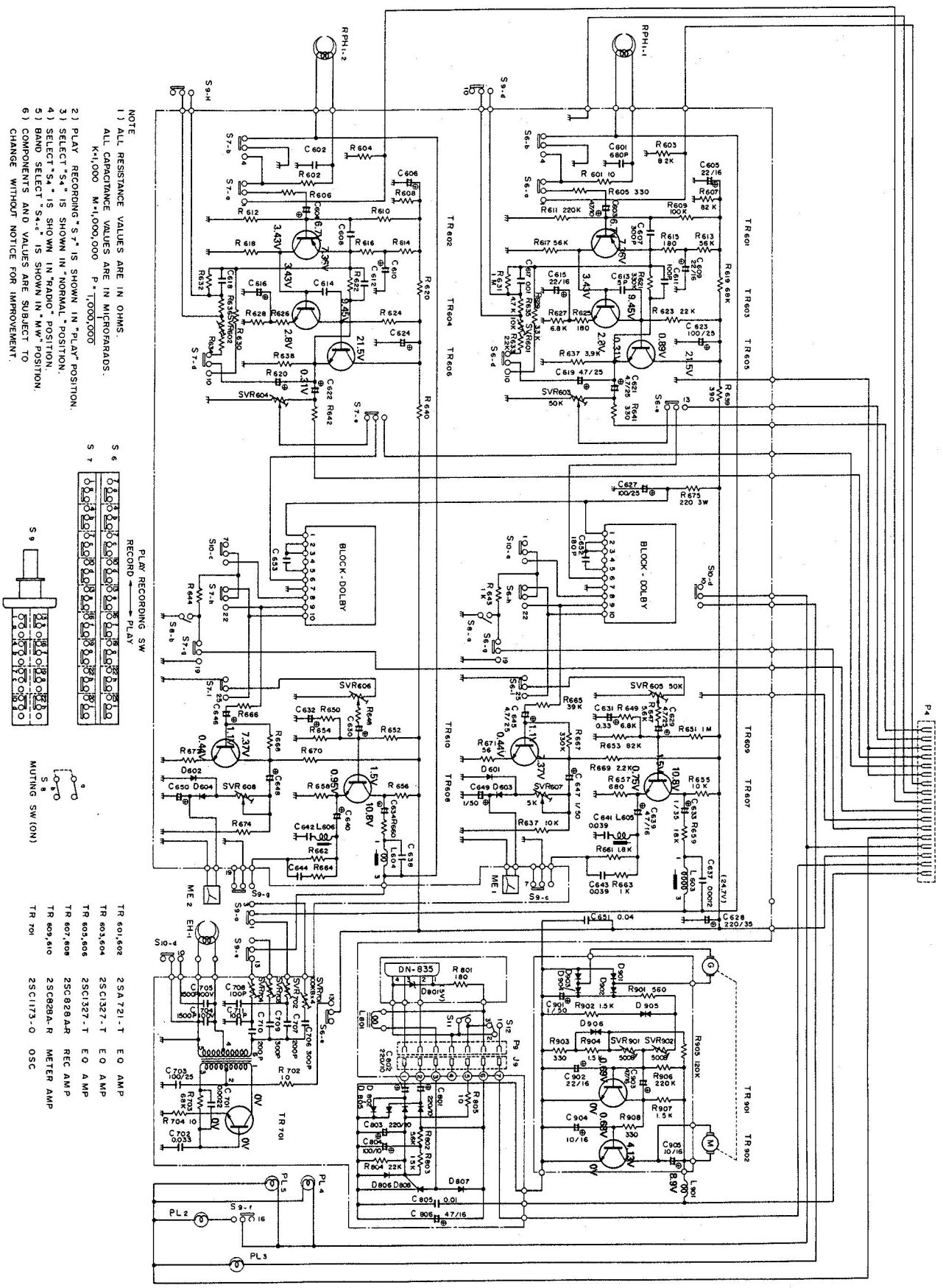
1) ALL RESISTANCE VALUES ARE IN OHMS
   ALL CAPACITANCE VALUES ARE IN MICROFARADS

   K=1,000 M=1,000,000 P=1/1,000,000

2) PLAY RECORDING "S6,S7" IS SHOWN IN "PLAY" POSITION.
3) SELECT "S9" IS SHOWN IN "NORMAL" POSITION.
4) BAND SELECT "S4" IS SHOWN IN "MW" POSITION.
5) COMPONENTS AND VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICE FOR IMPROVEMENT.

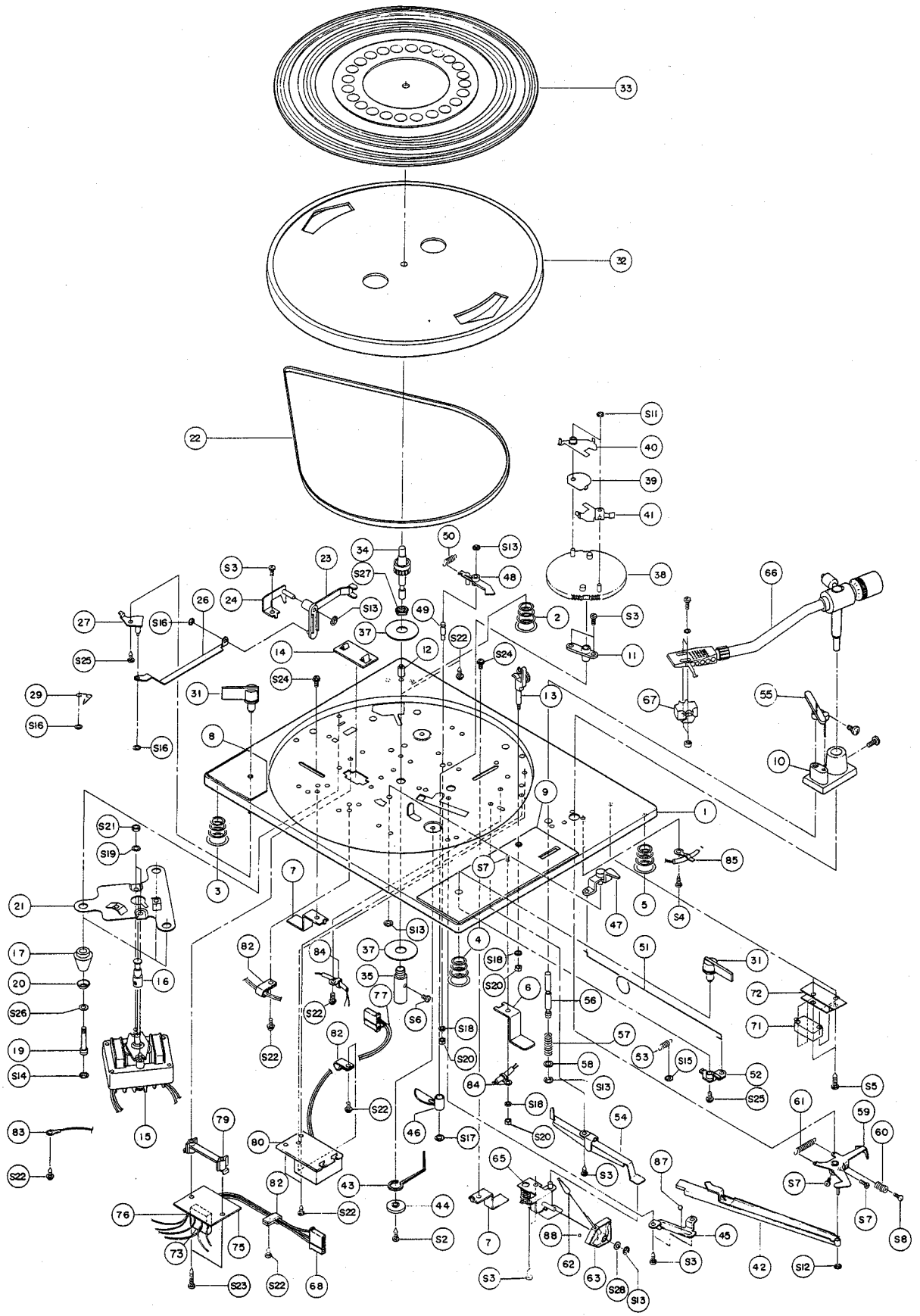
TR101	2SK19	FM RF
TR102	2SC785	FM CONV
TR103	2SC785	FM OSC
TR201	2SC380	FM IF AMP
TR202	2SC380	JUST TUNING AMP
TR203	2SC644	JUST TUNING AMP
TR301, 304	2SC1327	PRE AMP
TR001, 002	2SD325	RIPPLE FILTER
IC501	STK437	MAIN AMP
D201, 202	20A90	RECT
D203	WZ120	BIAS
D001	S2RB10	RECT
D002	W02	RECT
D003	WZ310	BIAS
D004	WZ090	BIAS
D005, 007	S8169	PWR, TUN, ST IND

7-5 CASSETTE DECK


NOTE
1) ALL RESISTANCE VALUES ARE IN OHMS.
ALL CAPACITANCE VALUES ARE IN MICROFARADS.
K=1,000 M=1,000,000 P=1/1,000,000
2) PLAY RECORDING "S.7" IS SHOWN IN "PLAY" POSITION.
3) SELECT "S4." IS SHOWN IN "NORMAL" POSITION.
4) SELECT "S4." IS SHOWN IN "RADIO" POSITION.
5) BAND SELECT "S4.c" IS SHOWN IN "MW" POSITION.
6) COMPONENTS AND VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICE FOR IMPROVEMENT.
PLAY RECORDING SW
RECORD ← → PLAY
MUTING SW (ON)
BLOCK - DOLBY
TR 601,602 2SA721-T E Q AMP
TR 603,604 2SC1327-T E Q AMP
TR 605,606 2SC1327-T E Q AMP
TR 607,608 2SC828A-R REC AMP
TR 609,610 2SC828A-R METER AMP
TR 701 2SC1173-O OSC

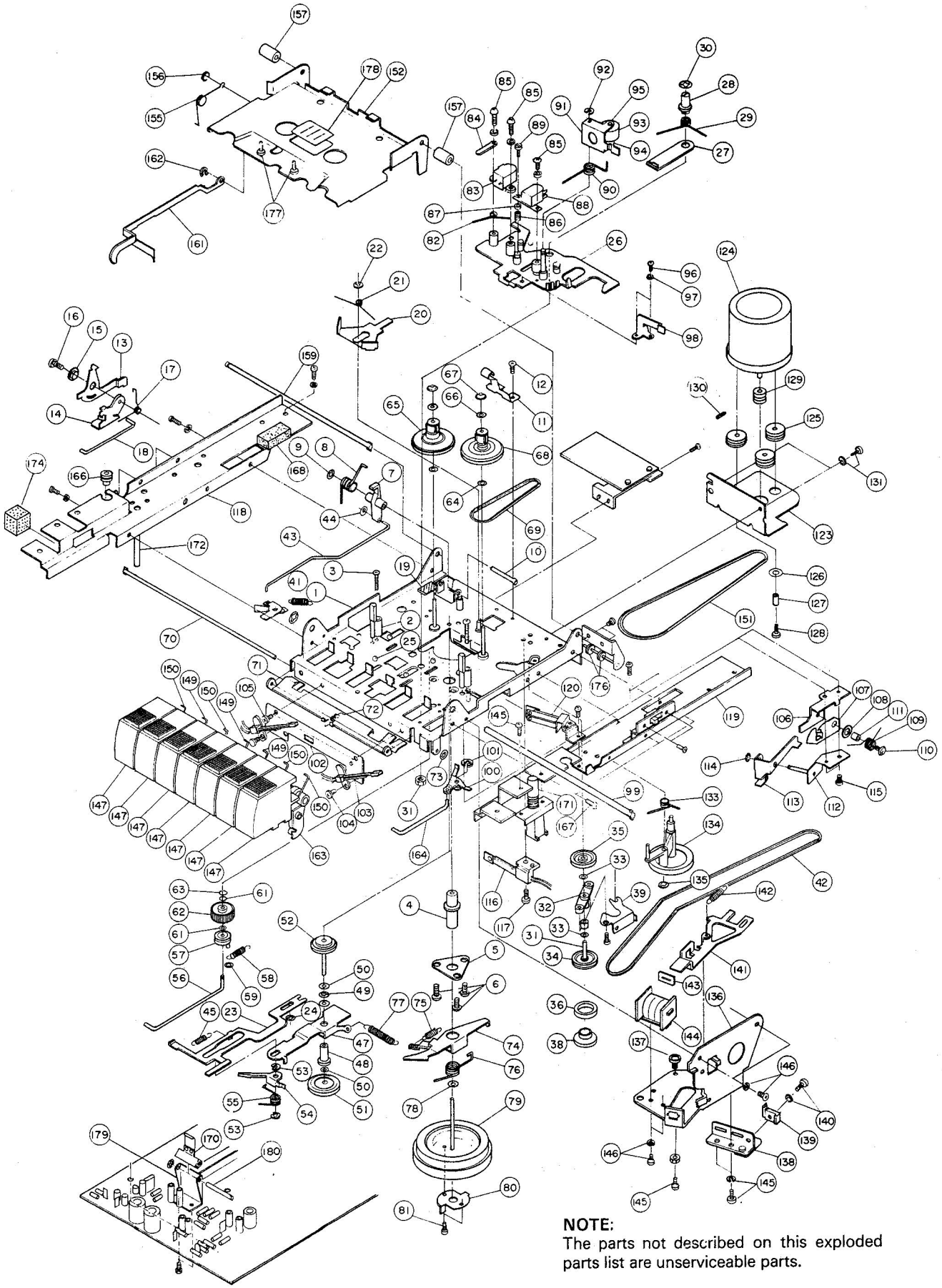
8. EXPLODED VIEW

8-1 PLAYER



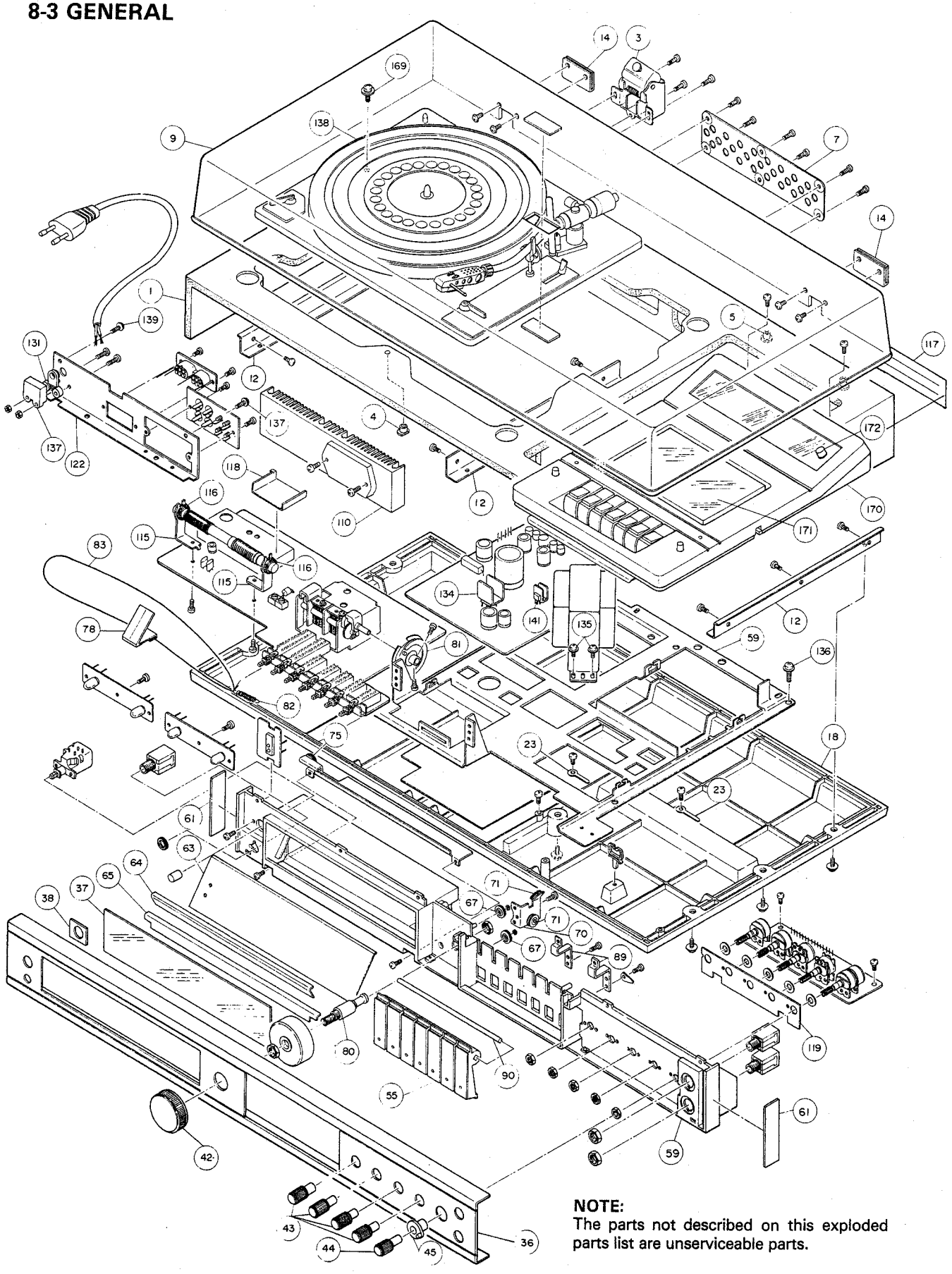
NOTE: The parts not desribed on this exploded parts list are unserviceable parts.

8-2 CASSETTE



NOTE:
The parts not described on this exploded parts list are unserviceable parts.

8-3 GENERAL



NOTE:
The parts not described on this exploded parts list are unserviceable parts.

9. EXPLODED VIEW PARTS LIST

9-1 GENERAL

Symbol No.	Part No.	Description
1	22831844	Main Cabinet (Silver)
	22831845	Main Cabinet (Wood)
3	22872513	Hinge (Main Cabinet)
9	20847783	Dust Cover
14	20753788	Hinge (Dust Cover)
18	22831843	Bottom Board
36	22823558	Front Panel Assembly
42	22835604	Tuning Knob
43	22835603	Volume Knob
44	22835602	Volume Knob (Right)
45	22835601	Volume Knob (Left)
51	20874623	Push Button (Power)
55	22835605	Push Button
	22771869	Torsion Spring (Push Button (55))
61	22844519	Panel Decorasion
78	22741627	Pointer
80	22743570	Tuning Shaft
81	22742577	Drum
82	22771807	Pull Spring
83	22772003	Dial Spring
90	25721791	Button Shaft
116	22756639	Bushing (Bar Antenna)
117	22866830	Main Label (For Europe)
	22866844	Main Label (For the United Kingdom)
	20956643	Clamp Label (Transit Screws)
	70402606	Pan Head Screw 2.6 × 6 (Radiator)
	22866759	"MADE IN JAPAN" Label (For the United Kingdom)
SPEAKERS PARTS		
	22832762	Speaker Cabinet (Silver)
	22832763	Speaker Cabinet (Wood)
	22151776	Speaker (Woofer)
	22151777	Speaker (Tweeter)
	22403028	Electrolytic 3.3 mfd/25WV
	22166420	Speaker Cord Assembly
ACCESSORIES PARTS		
	22953677	Owner's Manual
	22956836	Caution Label (Owner's Manual) (For the United Kingdom)
	20971652	45 rpm Adaptor
	22124267	FM Antenna
	22154176	Dynamic Microphone (For the United Kingdom)

9-2 CASSETTE

Symbol No.	Part No.	Description
2	25732606	Cassette Guide
4	25725609	Flywheel Bearing
5	25734605	Bearing Holder
7	25742604	REC Lever A
8	20707685	Torsion Spring
10	25724622	Pin
11	22772541	Plate Spring
13	25742758	Lock Lever
14	25846802	Lock Support
15	25721711	Lock Shaft
17	22771756	Torsion Spring
18	25767622	Joint C
19	22756795	Cushion
20	25731698	Brake Plate
21	22771816	Torsion Spring
23	25742666	Push Lever
25	25757602	Steel Ball (5/64)
26	25731682	Bracket Head Assembly
27	20709621	Plate Spring
29	20707638	Torsion Spring
31	25721652	Counter Shaft
32	25725604	Counter Bearing
34	25751701	Counter Pulley
35	25751607	Counter Pulley
36	22754868	Ring Magnet
38	22756800	Magnet Bush
42	25755679	Belt
43	25727603	Joint B
45	22771657	Pull Spring
47	25742741	FF Arm
48	25725614	FF Bearing
51	25752644	RF Idler
52	25752645	FF Idler Assembly
54	25742739	Rewind Lever
55	22771713	Torsion Spring
56	25727602	Joint D
57	25741602	Rewind Guide
58	20705683	Pull Spring
61	22752852	Special Washer (2.1 × 0.25t)
62	25727602	Rewind Idler
64	20791609	Washer (25 × 60 × 3N)
65	25751692	Reel Assembly
66	22752852	Special Washer
67	25764602	Cap
68	25764604	Rell Takeup Assembly
69	25755607	Belt
70	25724623	Pin
71	25742759	Lock Lever
72	20707643	Torsion Spring
74	25742740	FF Lever
75	22771725	Pull Spring
76	22771712	Torsion Spring
77	22771726	Pull Spring
78	20791609	Washer (25 × 60 × 3N)
79	25751667	Flywheel
80	25731660	Crow Plate
82	20707650	Torsion Spring
86	20703650	Push Spring
90	20707710	Torsion Spring
91	25742878	Pinch Arm Assembly
96	20795948	Special Screw
98	25742608	Switch Lever
99	25724629	Button Shaft
100	25742638	Pause Lever

Symbol No.	Part No.	Description
106	22754831	Pause Bracket
107	25745602	Pause Clutch
108	20791665	Washer (50 × 100 × 3V)
109	20707651	Torsion Spring
111	20773618	Spacer (AL)
112	25846803	Rejecting Holder
113	25742670	Rejecting Lever
125	20881608	Cushion
126	20791625	Special Washer (32 × 95 × 5MS)
129	25751630	Motor Pulley
133	20707652	Torsion Spring
134	25742663	Arm Takeup Assembly
137	25764619	Flywheel Thrust
138	25732663	Lever Guide
139	25846794	Lever Support
141	25734647	Trigger Plate Assembly
142	20705710	Pull Spring
143	22756735	Cushion
147	25826679	Push Button
149	22771704	Torsion Spring
150	22771703	Torsion Spring
151	25755621	Belt
152	22822651	Cassette Plate Assembly
155	22771754	Torsion Spring
157	22752866	Spacer
159	25764612	Holder Shaft
161	35742793	Protect Lever
163	25846849	Pause Support
164	25727606	Joint A
166	20881669	Bushing
168	22756822	Cushion
170	25742855	REC Lever Assembly
171	22835677	Push Button
172	22752937	Stud
173	20038601	Lamp Cover (For Meter Lamp)
174	22756807	Cushion
175	22756840	Cushion
176	20042601	Pulley
177	22743551	Cassette Guide
178	22866627	Label (For Cassette Holder)
179	22754919	REC Holder
180	25721773	Roller Shaft

SCREWS

3	70402612	Pan Head Screw 2.6 × 12
12	70402606	Pan Head Self Tapping Screw 2.6 × 6
96	70402003	Pan Head Screw 2.0 × 3
	70402605	Pan Head Screw 2.6 × 5 (Recording Switch (179))
128	70602610	Pan Head Screw 2.6 × 10
	70442605	Flat Head Screw 2.6 × 5 (Hall P.C.B. and Motor Mounting)
130	70732304	Set Screw (FF) 2.3 × 4

9-3 PLAYER

Symbol No.	Part No.	Description
1	20713818	Panel
2	20703813	Panel Spring (Red)
3	20703812	Panel Spring (Blue)
4	20703811	Panel Spring
8	20743826	Selecting Base
9	20743901	Rejecting Base
10	20735650	Pickup Stand
11	20773767	Gear Bearing
13	20738654	Arm Clamp Assembly
15	22125464	AC Motor
16	20716753	Motor Pulley (50Hz)
17	22756828	Cushion (Motor)
19	20764631	Shat
20	20746721	Cushion Holder
22	20728611	Belt
23	22743554	Belt Guide
24	20751705	Guide Bracket
26	20754626	Control Plate Assembly
27	20753934	Selecting Plate
29	20707692	Torsion Spring
31	20871866	Knob
32	20723683	Turntable
33	20723675	Table Sheet
34	20725689	Table Shaft Assembly
35	20725660	Table Bearing
38	20727638	Main Gear
39	20751704	Auto Trip
40	20751729	Auto Clutch
41	20753782	Hand Clutch
42	20753931	Auto Lever
43	20764702	Return Rod
45	20746754	Ball Holder
46	20757701	Return Cam
47	20751753	Reject Lever Assembly
48	20746737	Gear Stopper
49	20763824	Stopper Shaft
50	20705601	Pull Spring (Gear)
51	20707691	Rejecting Pole
52	20753933	Rejecting Plate
53	20705634	Pull Spring
54	20753888	Seesaw Lever Assembly
55	20764679	Lifting Bar
56	20764671	Lifting Shaft
57	20703818	Push Spring
59	20751772	Pickup Plate Ass'y
60	20703818	Push Spring
61	20705634	Pull Spring
66	20731796	Pickup Arm (without Head Shell)
67	22155317	Cartridge MM (without Stylus)
68	22164464	4P Plug Cord
71	22146335	Micro Switch
73	22370139	Metallized Mylar 0.047 mfd/1000V
77	22164494	3P Plug Cord
	20956740	Attention Label
	22956740	Attention Label
	20956704	Attention Tag Cord
	20953660	Belt Label
	20958605	Oil Label
	22563100	10 ohm, ±10%, ½W, Solid
	72602606	Pan Head Self Tapping Screw 2.6×10
[	20795969	Mounting Screw
[	20796027	Nut
[	20791077	Washer
		(For Cartridge Mounting)

10. ELECTRICAL PARTS LIST

RADIO PARTS

TOLERANCE: D:±0.5PF, J:±5%, K:±10%, M:±20%, P:+100 — —0%, Z:+80 — —20%, G:±2%
RESISTORS All fixed resistors are ¼W, ±5%, carbon resistor unless otherwise noted.

Symbol No.	Part No.	Description
		RF-BLOCK
VC1	22307604	Variable Capacitor
TC3	22309127	Trimmer Capacitor
TC4	22309127	Trimmer Capacitor
L101	22290004	Balun Coil
L102	22292013	Antenna Coil, FM
L103	22294312	RF Coil, FM
L104	22294313	RF Coil, FM
L105	22291089	Choke Coil, FM
L106	22294092	RF Coil, FM
L107	22242610	Antenna Coil Assembly
L108	22245299	OSC Coil, MW
L109	22205039	OSC Coil, LW
IT101	22265568	IF, Transformer, FM
TR101		Transistor, 2SK19-GR
TR102		Transistor, 2SC785-O
TR103		Transistor, 2SC785-R
		IF-BLOCK
	22133305	IF-BLOCK
TR201		Transistor, 2SC380-O
TR202		Transistor, 2SC380-O
TR203	22114233	Transistor, 2SC644-T
D201	22115201	Diode, 20A90
D202	22115201	Diode, 20A90
D203	22115306	Diode, WZ120
LCR201	22134109	LCR Combination
LCR202	22134109	LCR Combination
R214	22500123	330 ohm, J, 52 Cemented Resistor
R217	22571221	220 ohm, J, 1W Metal Oxide Resistor

AUDIO PARTS

Symbol No.	Part No.	Description
		EQ-BLOCK
	22136443	Equalizer Block
R333	22571222	2.2 k ohm, J, 1W Metal Oxide Resistor

Symbol No.	Part No.	Description
		AF-BLOCK (PRE)
TR301	22114327	Transistor, 2SC1327-T
TR302	22114327	Transistor, 2SC1327-T
TR303	22114327	Transistor, 2SC1327-T
TR304	22114327	Transistor, 2SC1327-T
R328	22570169	820 ohm, J, 1W Metal Oxide
		TONE-BLOCK
VR1	22620203	Variable Resistor 200 k ohm(Balance)
VR2	22628203	Variable Resistor 100 k ohm(Volume)
VR3	22620206	Variable Resistor 10 k ohm(bass)
VR4	22620206	Variable Resistor 10 k ohm(Treble)
	22624206	Variable Resistor 50 k ohm(Recording)
C409	22440138	Electrolytic 0.47 mfd/50WV
C410	22440138	Electrolytic 0.47 mfd/50WV
C411	22440139	Electrolytic 2.5 mfd/25WV
C412	22440139	Electrolytic 2.5 mfd/25WV
C415	22440138	Electrolytic 0.47 mfd/50WV
C416	22440138	Electrolytic 0.47 mfd/50WV
		AF-BLOCK (MAIN)
IC501	22114477	IC, STK437
TR001	22114022	Transistor, 2SD325-D
TR002	22114022	Transistor, 2SD325-D
TR001	22114478	Transistor, 2SD325-E
TR002	22114478	Transistor, 2SD325-E
D001	22115326	Diode, S2VB10
D002	22115251	Diode, WO2
D003	22115292	Diode, WZ310
D004	22115265	Diode, WZ090
C005	22370162	Metallized Mylar Capacitor 0.47 mfd/100WV, K
C006	22440106	Electrolytic 2200 mfd/50WV
C019	22440134	Electrolytic 2200 mfd/16WV
R001	22570209	6.8 ohm, J, 2W Metal Oxide Resistor
R002	22570169	820 ohm, J, 1W Metal Oxide Resistor
R003	22570208	56 ohm, J, 2W Metal Oxide Resistor
R004	22570209	6.8 ohm, J, 2W Metal Oxide Resistor
R005	22570183	270 ohm, J, 2W Metal Oxide Resistor

CASSETTE PARTS

Symbol No.	Part No.	Description
R517	22570143	10 ohm, J, 1W Metal Oxide Resistor
R518	22570143	10 ohm, J, 1W Metal Oxide Resistor
R521	22570154	100 ohm, J, 1W Metal Oxide Resistor
	22165047	Fuse Holder
F001	22144263	Fuse, 3.15 A
F002	22144263	Fuse, 3.15 A
F003	22144170	Fuse, 1 A
F004	22144171	Fuse, 0.5 A
PL-BLOCK		
PL001	22113356	Pilot Lamp
PL002	22113356	Pilot Lamp
PL003	22113356	Pilot Lamp
PL004	22113356	Pilot Lamp
	22116082	Pilot Lamp Socket
D005		Diode, S 8169
D006		Diode, S 8169
D007		Diode, S 8169
SUPPLY-BLOCK		
	22223400	Power Transformer (For Europe)
	22223407	Power Transformer (For the United Kingdom)
	22144185	Fuse, 1A (For the United Kingdom)
MISCELLANEOUS		
	22167467	Din Socket 2P Ass'y
	22163276	Jack, 6.5 ϕ
	22162359	Terminal Plate (US Pin Jack)
	22140323	Push Switch (Power)
	22176286	Power Cord (For Europe)
	22177072	Power Cord (Without Plug) (For the United Kingdom)
	22163601	Jack, 6.5 ϕ

Symbol No.	Part No.	Description
AF-BLOCK		
TR601	22114456	Transistor, 2SA721-T
TR602	22114456	Transistor, 2SA721-T
TR603	22114327	Transistor, 2SC1327-T
TR604	22114327	Transistor, 2SC1327-T
TR605	22114327	Transistor, 2SC1327-T
TR606	22114327	Transistor, 2SC1327-T
TR607	22114267	Transistor, 2SC828A-R
TR608	22114267	Transistor, 2SC828A-R
TR609	22114267	Transistor, 2SC828A-R
TR610	22114267	Transistor, 2SC828A-R
TR701	36771620	Transistor, 2SC1173-O
L601	22211192	AF Choke Coil
L602	22211192	AF Choke Coil
L603	22211192	AF Choke Coil
L604	22211192	AF Choke Coil
L605	22211165	AF Choke Coil 50 kohm
L606	22211165	AF Choke Coil 50 kohm
L701	22215083	AF OSC Coil
L801	22147151	Solenoid
L901	22211153	Choke Coil
S6	22146496	Slide Switch (Recording)
S7	22146496	Slide Switch (Recording)
S8	22145902	Leaf Switch (Muting)
S9	22140366	Push Switch (Tape Selector)
S10	22140394	Push Switch (Memory)
S11	22140333	Leaf Switch (Pause)
S12	22140356	Leaf Switch (Motor)
S13	22146485	Slide Switch
SVR601	22658212	Semi Fixed Resistor 10 k ohm
SVR602	22658212	Semi Fixed Resistor 10 k ohm
SVR603	22658214	Semi Fixed Resistor 50 k ohm
SVR604	22658214	Semi Fixed Resistor 50 k ohm
SVR605	22658214	Semi Fixed Resistor 50 k ohm
SVR606	22658214	Semi Fixed Resistor 50 k ohm
SVR607	22658211	Semi Fixed Resistor 5 k ohm
SVR608	22658211	Semi Fixed Resistor 5 k ohm
SVR701	22658215	Semi Fixed Resistor 100 k ohm
SVR702	22658215	Semi Fixed Resistor 100 k ohm
SVR703	22658215	Semi Fixed Resistor 100 k ohm
SVR704	22658215	Semi Fixed Resistor 100 k ohm
C603	22401036	Aluminum 4.7 mfd/10WV, M
C604	22401036	Aluminum 4.7 mfd/10WV, M
C631	22401035	Aluminum 0.33 mfd/35WV, M
C632	22401035	Aluminum 0.33 mfd/35WV, M
C633	22401033	Aluminum 1 mfd/35WV, M
C634	22401033	Aluminum 1 mfd/35WV, M
C704	22321093	Polyplopylene 1500 PF, J
C705	22321114	Polyplopylene 1500 PF, J
D601	22115201	Diode, 20A90
D602	22115201	Diode, 20A90
D603	22115201	Diode, 20A90
D604	22115201	Diode, 20A90
D801	22115319	Diode, WZ 050

CAPACITOR & RESISTOR

Symbol No.	Part No.	Description
D802		Diode, 1S 1555 V
D803		Diode, 1S 1555 V
D804		Diode, 1S 1555 V
D805		Diode, 1S 1555 V
D806	22692015	Varistor, MV 11
D807		Diode, 1S 1885
D808	22115223	Diode, SFIR3B41
R675	22570168	220 ohm, J, 3W Metal Oxide
R676	22570152	390 ohm, J, 1W Metal Oxide
R701	22570153	1.2 k ohm, J, 2W Metal Oxide
R705	22570152	390 ohm, J, 1W Metal Oxide
IC801	22114457	IC, DN 835
PL2	22113259	Pilot Lamp 0.03A/6.3V (Chrome)
PL3	22113259	Pilot Lamp 0.03A/6.3V (Chrome)
PL4	22113401	Pilot Lamp 0.1A/6V (Meter)
PL5	22113401	Pilot Lamp 0.1A/6V (Meter)
RPH1, 2	22217255	RP Head
EH1	22218166	E Head (Memory)
	22167193	Lamp Socket
	22125444	DC Motor
	22130286	Dolby Block
HALL BLOCK		
IC801	22114457	IC, DN835
D801	22115319	Diode, WZ050

Symbol No.	Part No.	Description
CAPACITORS (TUNER & AMPLIFIER BLOCK)		
C008	22448221	Electrolytic 220 mfd/50WV
C009	22341223	Ceramic 0.022 mfd, M
C010	22341223	Ceramic 0.022 mfd, M
C011	22447221	Electrolytic 220 mfd/35WV
C012	22342473	Ceramic 0.047 mfd, Z
C013	22443102	Electrolytic 1000 mfd/10WV
C014	22342473	Ceramic 0.047 mfd, Z
C015	22447471	Electrolytic 470 mfd/35WV
C016	22341223	Ceramic 0.022 mfd, M
C017	22341223	Ceramic 0.022 mfd, M
C018	22445221	Electrolytic 220 mfd/16WV
C020	22341223	Ceramic 0.022 mfd, Z
C101	22361200	Ceramic 20 PF, J
C102	22343472	Ceramic 0.0047 mfd, M
C103	22361609	Ceramic 6 PF, D
C104	22362201	Ceramic 200 PF, K
C105	22342223	Ceramic 0.022 mfd, Z
C106	22361220	Ceramic 22 PF, J
C107	22361309	Ceramic 3 PF, D
C108	22362101	Ceramic 100 PF, K
C109	22342223	Ceramic 0.022 mfd, Z
C110	22342223	Ceramic 0.022 mfd, Z
C111	22342473	Ceramic 0.047 mfd, Z
C112	22360297	Ceramic 22 PF, D
C113	22361609	Ceramic 6 PF, D
C114	22361300	Ceramic 30 PF, J
C115	22342223	Ceramic 0.022 mfd, Z
C116	22361609	Ceramic 6 PF, D
C117	22361100	Ceramic 10 PF, D
C120	22391302	Polyplopylene 3000 PF, J
C121	22372223	Mylar 0.022 mfd, K
C122	22372223	Mylar 0.022 mfd, K
C123	22361200	Ceramic 20 PF, J
C124	22391271	Polyplopylene 270 PF, J
C125	22391101	Polyplopylene 100 PF, J
C126	22342473	Ceramic 0.047 mfd, Z
C127	22343222	Ceramic 0.0022 mfd, M
C201	22343222	Ceramic 0.0022 mfd, M
C202	22341223	Ceramic 0.022 mfd, Z
C203	22341223	Ceramic 0.022 mfd, Z
C204	22362400	Ceramic 40 PF, K
C205	22361809	Ceramic 8 PF, D
C206	22341223	Ceramic 0.022 mfd, Z
C207	22343102	Ceramic 0.001 mfd, M
C208	22341223	Ceramic 0.022 mfd, Z
C209	22342473	Ceramic 0.047 mfd, Z
C210	22446479	Electrolytic 4.7 mfd/25WV
C211	22342473	Ceramic 0.047 mfd, Z
C212	22372332	Mylar 0.0033 mfd, K
C213	22372332	Mylar 0.0033 mfd, K
C214	22448109	Ceramic 0.0022 mfd, M
C215	22448109	Ceramic 0.0022 mfd, M
C216	22342473	Ceramic 0.047 mfd, Z
C217	22443101	Electrolytic 100 mfd/10WV
C218	22372102	Mylar 0.001 mfd, K
C219	22372392	Mylar 0.0039 mfd, K
C220	22372103	Mylar 0.01 mfd, K
C221	22372103	Mylar 0.01 mfd, K
C222	22342473	Ceramic 0.047 mfd, Z
C223	22445221	Electrolytic 220 mfd/16WV

TOLERANCE: D:±0.5PF, J:±5%, K:±10%, M:±20%, P:+100 — —0%, Z:+80 — —20%, G:±2%
RESISTORS All fixed resistors are ¼W, ±5%, carbon resistor unless otherwise noted.

Symbol No.	Part No.	Description
C301	22440116	Electrolytic 0.47 mfd/50WV
C302	22440116	Electrolytic 0.47 mfd/50WV
C303	22361100	Ceramic 10 PF, D
C304	22361100	Ceramic 10 PF, D
C305	22362301	Ceramic 300 PF, K
C306	22362301	Ceramic 300 PF, K
C307	22448109	Electrolytic 1 mfd/50WV
C308	22448109	Electrolytic 1 mfd/50WV
C309	22440116	Electrolytic 0.47 mfd/50WV
C310	22440116	Electrolytic 0.47 mfd/50WV
C311	22361100	Ceramic 10 PF, D
C312	22361100	Ceramic 10 PF, D
C313	22445221	Electrolytic 220 mfd/16WV
C314	22447221	Electrolytic 220 mfd/35WV
C315	22448109	Electrolytic 1 mfd/50WV
C316	22448109	Electrolytic 1 mfd/50WV
C317	22448109	Electrolytic 1 mfd/50WV
C318	22448109	Electrolytic 1 mfd/50WV
C321	22362501	Ceramic 500 PF, K
C322	22362501	Ceramic 500 PF, K
C323	22446101	Electrolytic 100 mfd/25WV
C401	22372182	Mylar 0.0018 mfd, K
C402	22372182	Mylar 0.0018 mfd, K
C403	22362301	Ceramic 300 PF, K
C404	22362301	Ceramic 300 PF, K
C405	22372473	Mylar 0.047 mfd, K
C406	22372473	Mylar 0.047 mfd, K
C407	22362101	Ceramic 100 PF, K
C408	22362101	Ceramic 100 PF, K
C413	22371104	Mylar 0.1 mfd, J
C414	22371104	Mylar 0.1 mfd, J
C501	22362101	Ceramic 100 PF, K
C502	22362101	Ceramic 100 PF, K
C505	22447100	Electrolytic 10 mfd/35WV
C506	22447100	Electrolytic 10 mfd/35WV
C507	22447100	Electrolytic 10 mfd/35WV
C508	22447100	Electrolytic 10 mfd/35WV
C509	22445101	Electrolytic 100 mfd/16WV
C510	22445101	Electrolytic 100 mfd/16WV
C511	22446470	Electrolytic 47 mfd/25WV
C512	22446470	Electrolytic 47 mfd/25WV
C513	22447220	Electrolytic 22 mfd/35WV
C514	22447220	Electrolytic 22 mfd/35WV
C515	22446102	Electrolytic 1000 mfd/25WV
C516	22446102	Electrolytic 1000 mfd/25WV
C517	22372473	Mylar 0.047 mfd, K
C518	22372473	Mylar 0.047 mfd, K
C519	22448101	Electrolytic 100 mfd/50WV

CAPACITORS (CASSETTE BLOCK)

C601	22391681	Polyplopylene 680 PF, J
C602	22391681	Polyplopylene 680 PF, J
C605	22445220	Electrolytic 22 mfd/16WV
C606	22445220	Electrolytic 22 mfd/16WV
C607	22362301	Ceramic 300 PF, K
C608	22362301	Ceramic 300 PF, K
C609	22445220	Electrolytic 22 mfd/16WV
C610	22445220	Electrolytic 22 mfd/16WV
C611	22362101	Ceramic 100 PF, K
C612	22362101	Ceramic 100 PF, K
C613	22361509	Ceramic 5 PF, D
C614	22361509	Ceramic 5 PF, D
C615	22445220	Electrolytic 22 mfd/16WV
C616	22445220	Electrolytic 22 mfd/16WV
C617	22371103	Mylar 0.01 mfd, J
C618	22371103	Mylar 0.01 mfd, J
C619	22446479	Electrolytic 4.7 mfd/25WV
C620	22446479	Electrolytic 4.7 mfd/25WV
C621	22446479	Electrolytic 4.7 mfd/25WV
C622	22446479	Electrolytic 4.7 mfd/25WV
C623	22446101	Electrolytic 100 mfd/25WV
C624	22446101	Electrolytic 100 mfd/25WV
C625	22372122	Mylar 0.0012 mfd, K
C626	22372122	Mylar 0.0012 mfd, K
C627	22446101	Electrolytic 100 mfd/25WV
C628	22447221	Electrolytic 220 mfd/35WV
C626	22446479	Electrolytic 4.7 mfd/25WV
C630	22446479	Electrolytic 4.7 mfd/25WV
C637	22372122	Mylar 0.0012 mfd, K
C638	22372122	Mylar 0.0012 mfd, K
C638	22372122	Mylar 0.0012 mfd, K
C639	22445470	Electrolytic 47 mfd/16WV
C640	22445470	Electrolytic 47 mfd/16WV
C641	22371333	Mylar 0.033 mfd, J
C642	22371333	Mylar 0.033 mfd, J
C643	22372393	Mylar 0.039 mfd, K
C644	22372393	Mylar 0.039 mfd, K
C645	22446479	Electrolytic 4.7 mfd/25WV
C646	22446479	Electrolytic 4.7 mfd/25WV
C647	22448109	Electrolytic 1 mfd/50WV
C648	22448109	Electrolytic 1 mfd/50WV
C649	22448109	Electrolytic 1 mfd/50WV
C650	22448109	Electrolytic 1 mfd/50WV
C651	22342403	Ceramic 0.04 mfd, Z
C652	22391181	Polyplopylene 180 PF, J
C653	22391181	Polyplopylene 180 PF, J
C701	22372222	Mylar 0.0022 mfd, K
C702	22372333	Mylar 0.033 mfd, K
C703	22446101	Electrolytic 100 mfd/25WV
C706	22362301	Ceramic 300 PF, K
C707	22362201	Ceramic 200 PF, K
C708	22362101	Ceramic 100 PF, K
C709	22362301	Ceramic 300 PF, K
C710	22362201	Ceramic 200 PF, K
C711	22362101	Ceramic 100 PF, K
C801	22443221	Electrolytic 220 mfd/10WV
C802	22443221	Electrolytic 220 mfd/10WV
C803	22443221	Electrolytic 220 mfd/10WV
C804	22443101	Electrolytic 100 mfd/10WV
C805	22341103	Ceramic 0.01 mfd, Z
C806	22445470	Electrolytic 47 mfd/16WV

RESISTORS (TUNERS & AMPLIFIER BLOCK)

R006	22545681	680 kohm
R007	22545681	680 ohm
R008	22545271	270 ohm
R101	22545101	100 ohm

TOLERANCE: D:±0.5PF, J:±5%, K:±10%, M:±20%, P:+100 — —0%, Z:+80 — —20%, G:±2%
RESISTORS All fixed resistors are ¼W, ±5%, carbon resistor unless otherwise noted.

Symbol No.	Part No.	Description
R102	22545474	470 k ohm
R103	22545330	33 ohm
R104	22545101	100 ohm
R105	22545472	4.7 k ohm
R106	22545223	22 k ohm
R107	22545102	1 k ohm
R108	22545102	1 k ohm
R109	22545223	22 k ohm
R110	22545103	10 k ohm
R111	22545332	3.3 k ohm
R112	22545103	10 k ohm
R113	22545331	330 ohm
R114	22545102	1 k ohm
R115	22545821	820 ohm
R116	22545561	560 ohm
R201	22545472	4.7 k ohm
R202	22545153	15 k ohm
R203	22545821	820 ohm
R204	22545471	470 ohm
R205	22545560	56 ohm
R206	22545102	1 k ohm
R207	22545182	1.8 k ohm
R208	22545225	2.2 M ohm
R209	22545682	6.8 k ohm
R210	22545273	27 k ohm
R211	22545331	330 ohm
R212	22545821	820 ohm
R213	22545332	3.3 k ohm
R215	22545104	100 k ohm
R216	22545104	100 k ohm
R218	22545391	390 ohm
R219	22545563	56 k ohm
R220	22545563	56 k ohm
R221	22511393	39 k ohm
R222	22545223	22 k ohm
R223	22545223	22 k ohm
R224	22545223	22 k ohm
R225	22545560	56 ohm
R301	22545224	220 k ohm
R302	22545224	220 k ohm
R303	22545124	120 k ohm
R304	22545124	120 k ohm
R305	22545564	560 k ohm
R306	22545564	560 k ohm
R307	22545152	1.5 k ohm
R308	22545152	1.5 k ohm
R309	22545562	5.6 k ohm
R310	22545562	5.6 k ohm
R311	22545154	150 k ohm
R312	22545154	150 k ohm
R313	22545222	2.2 k ohm
R314	22545222	2.2 k ohm
R315	22545334	330 k ohm
R316	22545334	330 k ohm
R317	22545104	100 k ohm
R318	22545104	100 k ohm
R319	22545105	1 M ohm
R320	22545105	1 M ohm
R321	22545821	820 ohm
R322	22545821	820 ohm
R323	22545682	6.8 k ohm
R324	22545682	6.8 k ohm
R325	22545224	220 k ohm
R326	22545224	220 k ohm

Symbol No.	Part No.	Description
R327	22547681	680 ohm, J, ½W, carbon
R329	22545473	47 k ohm
R330	22545473	47 k ohm
R331	22545104	100 k ohm
R332	22545104	100 k ohm
R334	22545224	220 k ohm
R335	22545224	220 k ohm
R337	22545273	27 k ohm
R338	22545273	27 k ohm
R339	22545183	18 k ohm
R340	22545183	18 k ohm
R342	22545123	12 k ohm
R401	22545103	10 k ohm
R402	22545103	10 k ohm
R403	22545153	15 k ohm
R404	22545153	15 k ohm
R405	22545151	150 ohm
R406	22545151	150 ohm
R407	22545821	820 ohm
R408	22545821	820 ohm
R409	22545220	22 ohm
R410	22545220	22 ohm
R411	22545222	2.2 k ohm
R412	22545222	2.2 k ohm
R413	22545683	68 k ohm
R414	22545683	68 k ohm
R431	22545123	12 k ohm
R501	22545822	8.2 k ohm
R502	22545822	8.2 k ohm
R503	22545224	220 k ohm
R504	22545224	220 k ohm
R505	22545224	220 k ohm
R506	22545224	220 k ohm
R507	22545394	390 k ohm
R508	22545394	390 k ohm
R509	22545272	2.7 k ohm
R510	22545272	2.7 k ohm
R511	22545271	270 ohm
R512	22545271	270 ohm
R513	22545123	12 k ohm
R514	22545123	12 k ohm
R515	22545822	8.2 k ohm
R516	22545822	8.2 k ohm
R519	22547391	390 ohm, J, ½W, carbon
R520	22547391	390 ohm, J, ½W, carbon

RESISTORS (CASSETTE BLOCK)

R601	22545100	10 ohm
R602	22545100	10 ohm
R603	22545822	8.2 k ohm
R604	22545822	8.2 k ohm
R605	22545331	330 ohm
R606	22545331	330 ohm
R607	22545823	82 k ohm
R608	22545823	82 k ohm
R609	22545104	100 k ohm
R610	22545104	100 k ohm
R611	22545224	220 k ohm
R612	22545224	220 k ohm

Symbol No.	Part No.	Description
R613	22545563	56 k ohm
R614	22545563	56 k ohm
R615	22545181	180 ohm
R616	22545181	180 ohm
R617	22545563	56 k ohm
R618	22545563	56 k ohm
R619	22545683	68 k ohm
R620	22545683	68 k ohm
R621	22545334	330 k ohm
R622	22545334	330 k ohm
R623	22545223	22 k ohm
R624	22545223	22 k ohm
R625	22545181	180 ohm
R626	22545181	180 ohm
R627	22545682	6.8 k ohm
R628	22545682	6.8 k ohm
R629	22545333	33 k ohm
R530	22545333	33 k ohm
R631	22545105	1 M ohm
R632	22545105	1 M ohm
R633	22545222	2.2 k ohm
R634	22545222	2.2 k ohm
R635	22545472	4.7 k ohm
R636	22545472	4.7 k ohm
R637	22545392	3.9 k ohm
R638	22545392	3.9 k ohm
R639	22545391	390 ohm
R640	22545391	390 ohm
R641	22545331	330 ohm
R642	22545331	330 ohm
R643	22545102	1 k ohm
R644	22545102	1 k ohm
R647	22545562	5.6 k ohm
R648	22545562	5.6 k ohm
R649	22545682	6.8 k ohm
R650	22545682	6.8 k ohm
R651	22545105	1 M ohm
R652	22545105	1 M ohm
R653	22545823	82 k ohm
R654	22545823	82 k ohm
R655	22545103	10 k ohm
R656	22545103	10 k ohm
R657	22545681	680 ohm
R658	22545681	680 ohm
R659	22545183	18 k ohm
R660	22545183	18 k ohm
R661	22545182	1.8 k ohm
R662	22545182	1.8 k ohm
R663	22545102	1 k ohm
R664	22545102	1 k ohm
R665	22545393	39 k ohm
R666	22545393	39 k ohm
R667	22545334	330 k ohm
R668	22545334	330 k ohm
R669	22545222	2.2 k ohm
R670	22545222	2.2 k ohm
R671	22545560	56 ohm
R672	22545560	56 ohm
R673	22545103	10 k ohm
R674	22545103	10 k ohm
R702	22545100	10 ohm
R703	22545683	68 k ohm
R704	22545100	10 ohm
R705	22545391	390 ohm

Symbol No.	Part No.	Description
R801	22545101	180 ohm
R802	22545562	5.6 k ohm
R803	22545153	15 k ohm
R804	22545223	22 k ohm
R805	22545100	10 ohm